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ABSTRACT

A guide to skilled occupations presents information on 30 occupations in narrative form. It is designed for students to use in career planning. For each occupation, the narrator describes, in conversational, first person form, the job, working conditions, necessary qualifications and personal characteristics, related school subjects, and opportunities for advancement and mobility. The occupations include: airline ticket agent, aquatic biologist, accountant, book editor, briefing attorney, ship's captain, commercial diver, computer programmer, conservation officer, editorial writer, electrician, executive, Federal Bureau of Investigation special agent, fish culturist, foreign correspondent, hearse chauffeur, international sales representative, longshoreman, managing editor, marine geophysicist geologist, merchant marine, optometrist, pediatric nurse, pilot, radio officer, railroad steward, taxi driver, travel information service worker, truck dispatcher, and veterinarian. (MSE)

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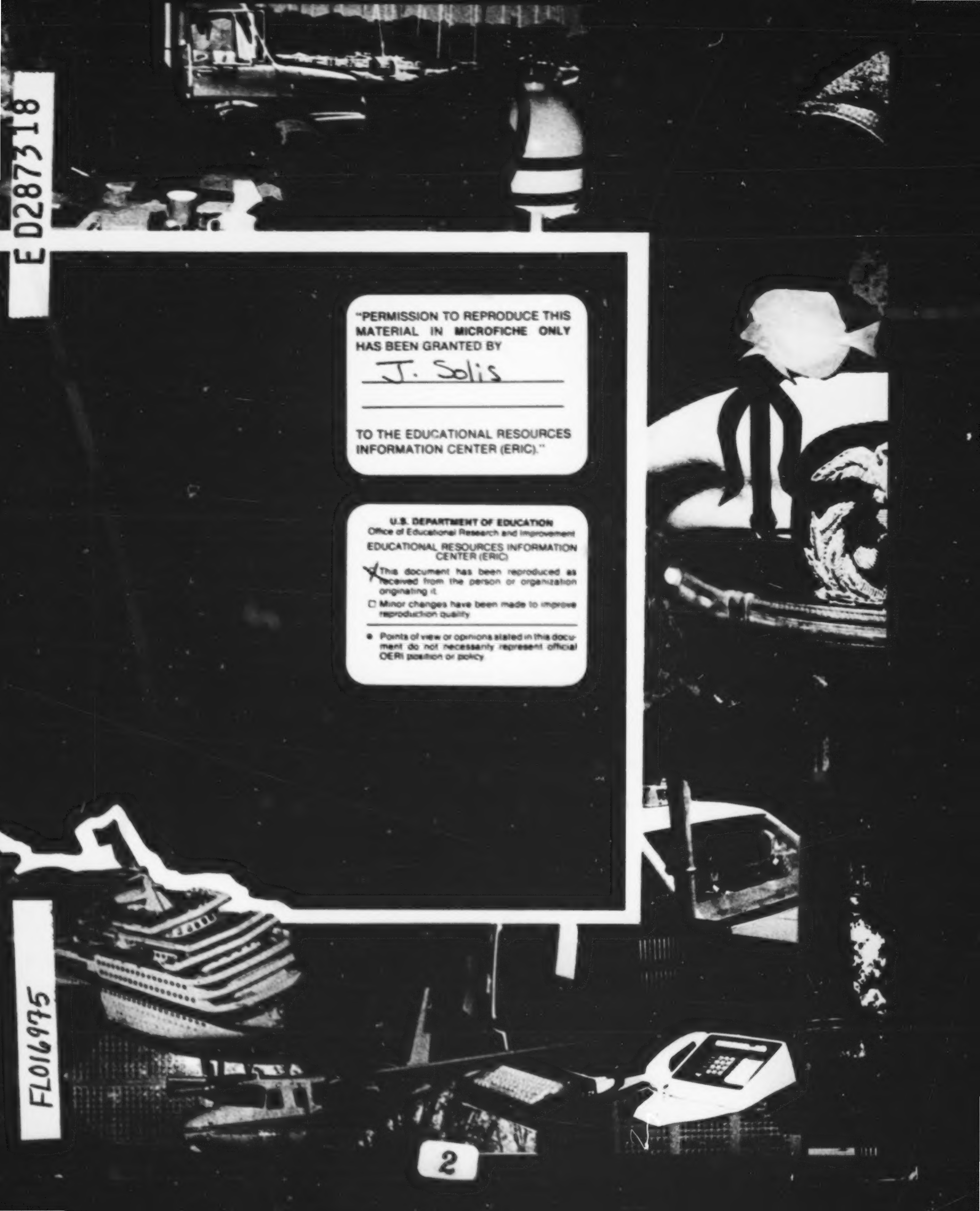

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CAREER PROFILES

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INTRODUCTION

This volume of brief narratives is written in a conversational, first person style in order to attract and maintain interest. Although presented in story form, the reader obtains all necessary information concerning the various careers. Each individual discusses his or her job in relation to specific working conditions, qualifications, related school subjects, advancement and transferability. This unique approach to job data is low level, high interest reading and may be used in conjunction with the Applied Basic Curriculum Series which concerns careers related to communication, mathematics, science and social studies. This volume of career information can also be used in a vocational education class or as a supplementary source of information in the academic counselor's office. Students would be able to read through the volume before making choices on their academic courses. The reader is certain to appreciate the importance of an education in all the careers profiled within this volume.

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Each ticket that I issue shows the passenger's name, the flight number, departure time, destination, and fare.

Airline Ticket Agent

"Here you are, Mr. Moreno. Your round trip ticket, first class, from Houston to Miami. I hope you will enjoy your flight."

Mr. Moreno was my first customer this morning. As a ticket agent for Icaro Airlines, I sell airline tickets at Houston International Airport. Since thousands of travelers pass through the airport each day, my work day is a busy one.

I keep an accurate record of the payments I receive for tickets, and when a customer pays cash, I am careful to give correct change. Each ticket I issue shows the passenger's name, the flight number, departure time, destination, and fare. I enter all the information in a computer so that the airline has a record of each purchase. I check each passenger's baggage, tagging it for shipment on the plane. On international flights, I weigh the luggage since there is a weight limit. I tell the passengers which gate they should go to in order to board the plane.

Sometimes I make or change reservations for passengers. Many passengers ask me questions about flight schedules and fares. By using airline guides and time tables, I find the information they need. I also use the computer terminal, which provides me with the answer to any question in a few seconds. I really enjoy my job because I am dealing directly with people all day long.

Working Conditions

I work behind a counter at the airport, standing most of the day, and I wear the uniform of Icaro Airlines. Some ticket agents work at counters in downtown ticket offices, hotel lobbies, or other places. Although I work in a large city, ticket agents also work in smaller communities.

Because I sell tickets for flights which leave at all hours, my work schedule is irregular, including some nights and weekends. Many people travel during the summer and during holiday seasons, such as Thanksgiving and Christmas. At these times, I work under a great deal of pressure, selling tickets quickly to long lines of waiting customers. Usually I work forty hours a week, and when I have to work overtime, I receive overtime pay. I am always glad to get overtime pay to help meet expenses.

I have two weeks of paid vacation, and after I have worked a longer time for Icaro Airlines, I will have four weeks. I also have health and life insurance, sick leave, and retirement benefits. My family and I can travel by air at greatly reduced rates.

Qualifications

Most airlines like to hire people who are high school graduates, and many prefer applicants with some college training or business experience. While I was in high school, I had worked part-time as a cashier, and this gave me valuable experience in handling money. As a beginning ticket agent, I was given a week of classroom instruction, followed by on-the-job training. This helped me learn to use the schedule and rate books, as well as the computer terminal. I learned to follow the procedures for selling and issuing tickets and for making reports on cash sales.

Two of the high school courses I enjoyed most were Business Math and Computer Math, both have been useful to me in my work. During my senior year, I was in a Distributive Education program, and through my work in a department store I learned a lot about sales.

Personal Characteristics

Occasionally someone asks me what qualities he or she should have in order to become a ticket agent. Most airlines want a person with a good speaking voice, a pleasing personality, and a neat appearance. Other important qualities are friendliness and intelligence. I have always been interested in people, and my natural friendliness has been an asset to me in my work. My job requires me to use a lot of patience and tact, and to control my temper, even in very trying situations. Through experience, I have found that by remaining very pleasant and polite, I can usually win over even the most unhappy or angry customer, so that he or she becomes a satisfied one. Dealing with the public makes my job interesting and challenging. In my private life, I like activities in which I can be with people. With my children — Lisa, Frank, and Celina — I enjoy going to the beach at Galveston to swim or to picnic. Often we visit our friends and relatives in their homes or invite them to our home.

Advancement and Transferability

I hope to advance to the position of city manager of Icaro's ticket offices, and afterwards, to that of district manager. From there, I plan to advance further by getting into the selling, and I'll need a lot of money to continue to meet expenses and to provide my children with a college education or other training. Some corporations spend large amounts of money on airline tickets each year, and I want the job of calling on these companies to get as much of that business as I can for Icaro Airlines. If I do well, perhaps I'll become district sales manager some day.

If I should leave my job as an airline ticket agent, I can use my skills as a cashier or as a ticket agent for a bus company or a railroad. I can also work as a passenger service representative, greeting the passengers at the terminal and helping them with problems or complaints.

Often we set up camp near rivers or ponds where we study the water life.

Aquatic Biologist

I already smoke a pipe, and my friends gave me a funny looking hat so that I would really look like Sherlock Holmes. All week I have been a detective. Last week a great many fish died in one of the rivers that is particularly popular with sport fishermen. My unit was given the task of finding out what had caused this problem so that we might prevent such things from happening again. After extensive study of the waters in the area, we located the problem. A drum containing an insecticide had rolled into a drainage ditch, poisoning it and poisoning the river that it emptied into. Once we found the insecticide drum, it was up to another agency to determine what to do about the offender who owned it and who owned the farm where the poison was being used.

Detective work is not really my chief responsibility. I am an aquatic biologist. I study all living organisms in the waters of the earth. These include plants, animals, algae and some microorganisms that are sometimes hard to classify. I am particularly interested in how they relate to each other and to their environment. The problem of pollution is increasing because of thoughtlessness on the part of people and industry. I must find out how much it affects the growth of water life. Something must be done so that conditions will not get worse and these life forms will not suffer. I recognize that their well-being is very important to our well-being.

As an aquatic biologist I check water temperatures, the amount of life-giving oxygen in the water, and the effects of drainage from our cities, fields, and industries into rivers, lakes, and ponds. This drainage is not always direct. Sometimes it goes into the earth only to find its way into our underground water supplies. Even rain water, once considered the purest form of water,is now turning acidic because of acid in the atmosphere from industrial wastes. Rains in some areas are also causing the death of fish and wildlife.

Aquatic biology is getting very specialized. Since I work in the study of fresh water and concentrate on rivers, lakes, and ponds, I am a limnologist. Aquatic biologists that specialize in salt water bodies are called marine biologists. Their main interest is in the oceans, though they also study salt water lakes and other salty bodies of water.They further specialize in three distinct areas of the ocean: the nearshore, which covers beaches, lagoons, and estuaries (that portion of a river that is at tide water level); the continental shelf and slope, which is the relatively shallow sea that extends out from most continents; and the deep sea.

Aquatic biologists study water life in its natural habitat and in artificial settings such as aquariums and hatcheries. Some grow fish in order to study them. Others actually cultivate them for stocking rivers and ponds and for the commercial market. These are called aquaculturists. Aquatic biologists also lend support to other sciences in the study of ocean currents, oil exploration, design of ports and sewage disposal plants. Aquatic biologists are very concerned about the ways in which cities and industries dispose of waste material, since that waste will eventually be carried into our rivers and oceans. As our population and our industries grow, our pollution problems grow, too. Next to the air we breathe, water is our most important natural resource. We must understand it better in order to protect it — and us.

Working Conditions

I work for the state and also teach an advanced course at a university. Some of my work is done in a clean, well-lit and ventilated laboratory. Very often, however, I travel to rivers and ponds where I study the water life. Some of these are close by, but some are in very remote areas away from towns. I may go alone or with a party of helpers; I may stay there only a few hours or as long as several weeks. If there are no living quarters, we set up camp and live in fairly primitive conditions. I enjoy these outings because I am an outdoorsman. If I were not, I would not have chosen this field.

As an employee of the state, I have many benefits besides my salary. I have many assistants, free transportation and living expenses when I am away from my office, and all the support I need in the form of library sources, equipment, data analysis, and report writing. The agency and the university encourage me to write articles and books, and to work as a consultant to other agencies. They provide life and hospitalization insurance and a good retirement plan. They also encourage me to do what I enjoy most: to teach others the things I have learned over a long period of time. I do this through on-the-job training, supervising graduate students' research, and writing. I plan to continue many of these activities even after I retire.

Qualifications and Personal Characteristics

Although I have a Ph.D. and many years of experience in this field, many aquatic biologists have only a B.S. or an M.S. They are junior members of research teams, advanced technicians or medical researchers. With a B.S. many become salesmen of technical products in the field of aquatic biology or find employment in the growing field of aquaculture (fish hatcheries and water plant cultivation, including seaweed). Junior members of research teams generally continue their studies and move to more responsible positions.

There are many women coming into the field. A person interested in this field should be able to communicate well orally and in writing, be able to work well both independently and as a member of a team, and should be prepared to work under all kinds of conditions including some that call for strenuous physical activities. They should expect to spend long periods of time in the field or on board research ships and to endure extreme conditions of climate.

Junior colleges (most are now called community colleges) are now offering excellent two-year courses that qualify their graduates (A.A.) for entry level positions as technicians with opportunities to continue their preparation and become professionals. Preparation should really start in high school where a heavy science curriculum should be pursued with strong emphasis on technical reading and report writing. Independent study of lakes and oceans should also be pursued, since most high schools do not have courses that are specialized in the areas.

Relevant School Subjects

In addition to a heavy schedule of science courses in high school, prospective aquatic biologists should learn swimming, diving, outdoor hiking and camping. They should work on individual and group science projects and should learn the dynamics of working with groups in clubs, sports, and similar activities. Women are showing a growing interest in the field and are proving they can stand the rigors of outdoor life and strenuous physical work.

Advancement

Even those with a Ph.D. cannot expect to start at advanced, responsible positions. It takes many years of study and on-the-job experience to learn the many important things that are essential in aquatic biology. Well-prepared high school students should not hesitate to enter the field. They can be helpers or secure summer jobs in projects that will give them first hand experience under professional tutors.

Although private industry employs more biologists than do state and federal agencies, this is not the case in aquatic biology. Here the state and federal agencies are the chief employers. Advancement is generally governed by state guidelines or by federal civil service examinations. Aquatic biologists with a B.S. or M.S. can earn good salaries as beginners with governmental agencies. They can reach high levels that pay more than double the beginning salary. Those with degrees other than a Ph.D. can expect good advancement opportunities through the 1980's, but after that, competition will be keen for anyone without a Ph.D.

Transferability

If I no longer wished to work at this particular job, I could easily find a full-time teaching position in a university. I could also go to work in industry. Companies who sell scientific equipment or chemicals for use in scientific research often hire people with Ph.D's to sell their products or services. These businesses pay very well. In any case, people like me who have degrees in science never have to spend a long time looking for a job.

Each accountant has his own desk with all the necessary equipment.

Accountant

It is Monday morning at the office. As I review my calendar of activities for the week I realize it will be another busy but interesting week. Let's see:

Monday — Meet with Mr. Ramón García of García's Dry Cleaners to help him set up his bookkeeping for his new business.

Tuesday — Prepare end of the month accounting reports for my assigned client list, including two service stations, one record shop, three restaurants and one musical band.

Wednesday and Thursday — Meet with Pérez Manufacturing Company regarding their requirements for a better accounting system in response to added government regulations and increased productivity.

Friday — Prepare income tax reports for López Record Shop and Sal's Used Cars.

For the past four years I have been an accountant in public practice. I am one of six accountants in our firm, Al's Accounting Services. Public accountants like myself serve many different kinds of clients, such as commercial businesses, industrial firms, government agencies, and nonprofit institutions. We perform different services ranging from ordinary record keeping to advising the client on complex management matters. Accounting has been described as the "language of business." It plays a key role in almost every business decision.

I did some research and discovered that accounting started with the cavemen who used pebbles to count. In fact, the Latin word "calculus" means pebble, which is the root of the word calculate used so widely today.

From the days of clay tablets which were found by archaeologists in Asia Minor and date back to 2500 B.C., the past centuries have given us codes, calculators, and computers to assist us in setting-up modern systems.

Working Conditions

My office is an independent accounting agency located in a large office building. Our office contains a lobby, a comfortable and modern office for each accountant, two conference rooms, and a reference library. This reference library contains the latest in accounting procedures and tax laws.

Each one of us has a modern calculator on our desk and a filing cabinet with complete files on all of our clients. We maintain a professional attitude in our office at all times because we realize our clients consider us the experts in the accounting part of their business. Accuracy is a must with us; one error can cause problems. But once we complete our work, there is a lot of satisfaction in putting in order a mountain of ledgers and figures.

Qualifications

The challenge is definitely there for a person who wants to be an accountant. Being a wizard at arithmetic will not necessarily qualify you, but you should have a liking for figures and a real respect for accuracy. Persistence is a very desirable qualification. You must stick with the problem until a solution is found, even though several hours may be spent in searching for a single important fact or error. Liking people and being able to get along with others are characteristics which are a must if you want to truly succeed. Other attributes that would qualify you would include integrity, honesty, fidelity and dedication to the practice of accepted principles of accounting science.

Related School Subjects

Once I determined that I had a capacity and a desire to be in the accounting profession, I decided to attend a college or university. I kept my grades at a high level in case I decided to attend graduate school. After college I continued my studies and became a C.P.A. (Certified Public Accountant) which is the highest level of general accounting and requires a special state exam. In addition to all the accounting courses, I took several business administration courses. I also took courses in speech and public speaking which have given me confidence and poise in dealing with people. Finally, you should remember that in addition to the ability needed to analyze, prepare and interpret data you must be able to express yourself competently in both oral and written reports. Your advice on financial and tax matters will be very important, and you must be properly prepared to communicate with other people. Knowing a second language like Spanish can also be very helpful. There are many Spanish speaking people who do not read or write English well. Sometimes these people require my help in filing their federal income tax return, to name only one example.

Personal Characteristics

Probably the most important personal characteristic you should have to be an accountant is that you be willing and able to work hard and, if necessary, for long hours. Preparation is a must. It is very important to like people and to like to work with them.

Advancement

The opportunities in the field of accounting are many. During the last twenty years there has been a great expansion of industrial activity and scientific research. Greater financial control through better accounting goes without saying. Government regulation and influence in the affairs of business require more thorough records. With increased production in industry and with emphasis on mass production techniques, there is a strong need for cost control and efficiency. This insures that accounting will continue to be a wide-open field for those who are prepared.

Transferability

Within the accounting profession there exist many different opportunities. For example, the accountants in public practice like myself differ from private accountants who work on a salary basis for a single employer such as those in an industrial firm, commercial business, or government agency. The size and composition of public accounting firms can vary depending upon the number, size, and type of clients served. For instance, you will find public accounting firms made up of a single owner with perhaps only one employee. And then there are the large national accounting firms composed of many partners and having hundreds of employees on their staff.

Another opportunity for the accountant is with the Internal Revenue Service which is constantly recruiting.

Finally, the government is in constant need for accountants at all federal, state and local levels. An accountant has a wide choice of employment and a future that in many cases ranks far ahead of specialization in other fields.

I often take manuscripts home to read while curled up in comfort.

Book Editor

"Mrs. Antesana, a Mr. Holmes would like to see you." My secretary's voice came over the intercom. I had to think for a second or two. Oh, yes, Mr. Holmes is a literary agent, a representative who helps authors publish their books.

"Send him in, Mary."

Mr. Holmes was a slender, serious-faced young man in his early thirties. He had been to see me before, perhaps twice, some time back. Although we didn't publish what he brought, I seem to remember his having submitted good manuscripts (books before they are published). I was willing to look at what he had, even if he hadn't made an appointment.

Our interview, like most of this nature, was brief. He said that he thought this new manuscript was the type that would interest our company. It was the first book written by a young man he was representing, and he felt this new author had great promise. I thanked him, and put the manuscript aside on a stack of about fifteen others. Well, what else can I say? That's a big part of why they pay me.

My name is Teresa Antesana, and as you may have guessed, I'm a book editor. I read hundreds of manuscripts like the one Mr. Holmes brought, but for every hundred that are submitted, we may publish only two.

In ten minutes I have an appointment with a Mr. Roberts. We have published two of his books, and I need to talk with him about his latest manuscript. We want to publish it, but I feel it needs some major revisions. I am still not comfortable telling an author how he should change something he has written, but I do this in order to fill two requirements. I must judge the quality of the prospective publication, and two, I must keep in mind the marketability. that means, how well the book will sell.

A while back, James McGee, one of our editors who specializes in nature books, suggested that we find someone to write a book on a proposed national forest. After Jim approved the manuscript, I looked at it, and I believe it is ready to publish. This afternoon Jim and I will meet with an editorial committee who approve new publications. I agreed with Jim on the best printing type face and other details and with my recommendation, I believe the committee will also approve it.

Later this afternoon, I have an appointment with a new author we are publishing. Everything is set. After I approved the manuscript, the editorial committee approved the printing, and now we are ready to sign the contract. This author will have his agent with him to help ensure that the contract is satisfactory to his interests. We have agreed on a 10% royalty fee on the book. This means that for every one hundred dollars in sales, the author receives ten dollars. The remaining money is divided among the bookstores that sell the book, the costs of printing, and the profit for our company. We will also agree on how much and what kind of publicity and advertising we will furnish. His literary agent may line up some interviews for him on radio or television talk shows to discuss his book and interest people in it.

Even with all the appointments and meetings, I must read most of these manuscripts as soon as possible! There may be two or three more on the stack by the time I'm ready to go home, so I'll probably slip a few in my briefcase to go over after dinner tonight.

Working Conditions

As you can see, this job keeps me very busy. But I have a very nice office in which to do my work. It's on the top floor of our firm's headquarters, a tall building in the center of a large city.

While my job keeps me busy, it is also a very rewarding one. The authors and literary agents with whom I work are very interesting people. Mary, my secretary, says I spend too much time talking with them, and that is one reason I have to take so much work home with me. But I like taking work home. It gives me a chance to reflect on each manuscript again. Also, my husband often helps with an occasional opinion, and I can bounce ideas around with him.

Qualifications

A college degree is almost a must for a book editor. I received my degree in liberal arts with a major in English, and I spent two more years on a Master's degree in English.

My first job was as a copyreader for a magazine publisher. A copyreader examines articles and features, checking for correct grammar, spelling, and clarity. Later I was promoted to assistant editor of fiction for the same magazine before taking a similar assistant editor's position with this company.

There are no examinations for this job, but when I applied I had to show samples of previous work as well as recommendations from previous employers.

Related School Subjects

Besides my courses in English, as a liberal arts graduate I studied a wide variety of courses in art, music, history and the social sciences (anthropology, psychology, sociology, political science) and the general sciences. An editor has to be familiar with many fields of knowledge. Although our company has editors who specialize in technical books, art books, children's books and other types of books, I often must make decisions concerning the publication and readability of books in these fields as well.

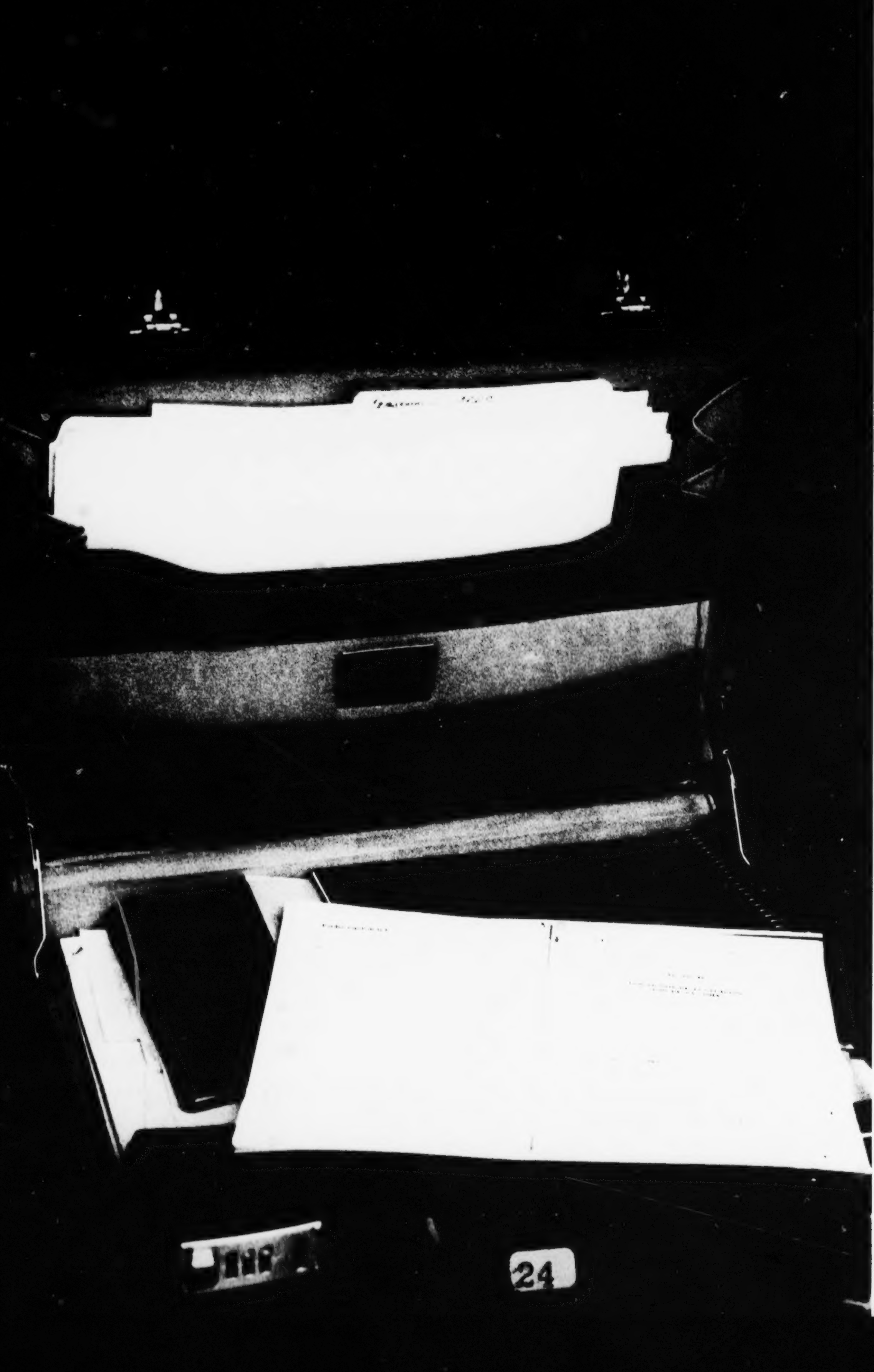
Personal Characteristics

Because I am interested in a variety of subjects, it is easy to be enthusiastic about my work now. I can remember when I was in high school, I thought I'd never learn to express myself clearly, or become well organized and efficient. I used to gripe about many courses but now I am glad I was made to take them. What would I do without typing? It also helps to have your goals worked out in your head, and then have a plan as to how you will achieve them. When I was in school, even though I hadn't determined my goals, I read quite a bit. This helped me become a more well-rounded person with a variety of interests.

I guess one of the toughest parts of my job is having to be practical. Sometimes we decide not to publish books that I feel are good, but will not sell. It is really difficult many times to have to say no to so many authors.

Advancement and Transferability

Although I have about the highest position I can achieve in this company, I could always take a job in a larger publishing house. There are several other jobs I could also look into, such as public relations works with a business firm that publishes newsletters or magazines, or I might be an editor for an educational publishing house.



A great deal of my time is spent researching information for clients.

Briefing Attorney

"Do you solemnly swear to tell the whole truth and nothing but the truth, so help you God?

"I do."

With these words the long awaited courtroom drama begins. The jury of twelve citizens is prepared to listen to the witnesses for the prosecution and the defense. The attorney is ready to begin the direct examination of the witnesses. The counsel for the defense picks up his pen and gets ready to note the highlights of the testimony of the witnesses so that when it is his turn to ask the witnesses questions, he will be able to recall instantly the important parts of their testimony.

Working Conditions

The day of trial does not just happen. Many days and sometimes years are spent preparing for that important day. The counsel for the defense has interviewed the defendant, all the witnesses, the police officers and the private investigators so that he is able to reconstruct the events of the crime. It is necessary that the case be analyzed thoroughly. The attorney must present to the jury a clear and well-organized presentation of the facts and the law so that the jury has a good understanding of what occurred.

I am able to attend many courtroom dramas. My job involves working for a federal district judge. My official title is briefing attorney to a federal district judge. My responsibilities are to assist the judge in monitoring the case, from the time it is filed until its termination. I make certain that the attorneys for both sides have submitted the proper papers and have followed the rules of criminal procedure as set forth in the statutes.

Qualifications

The federal judge's office includes two briefing attorneys and one legal secretary. The briefing attorneys perform the legal research for each case, and they also converse with the attorneys for the prosecution and the defense. The legal secretary does all the legal typing. Most of my time is spent either researching the case in order to advise the judge of the appropriate action or talking with the attorneys. Working with the judge on matters of legal research is exciting and educational. Sometimes it is tedious, but generally each case possesses its own degree of novelty. The compensation for a briefing attorney is comparable with first year salaries offered by most law firms. The most valuable aspect of my job is that I am exposed to all phases of a trial. This experience is normally not available to a young attorney just starting his law practice.

A law degree and college degree are required for the position of briefing attorney. Lawyers are required to take a state bar examination before being able to practice law. My position requires the willingness to spend long hours in the office preparing the cases by analyzing them and writing legal memoranda. I have spent as much as 16 hours per day, six days a week working on some especially complicated case.

Related School Subjects

The subjects most related to law are, of course, government, history and civics. I remember during my junior high days that social studies courses turned me off; they were boring. I was more interested in physical education and sports.

I will never forget the "law day" put on by my high school civics class with the help of some volunteer lawyers. We simulated a murder trial. I did not get to participate. I only observed, since I was not too interested in my classwork at that time. But that day, as I saw for the first time the work of a lawyer defending people, I said to myself:

"One of these days I am going to be a lawyer."

In high school, I also took the academic courses of mathematics, English and sciences. This prepared me for college. In college, I took courses in mathematics, English, science, and the humanities. I received a well-rounded education. A person must be aware that there is not any one course or set of courses which will prepare him or her for law school. Rather a person's college education should be well-rounded. I majored in political science and history. I felt that such an education was beneficial to me. When I attended law school, my college education prepared me sufficiently to handle the demands of that speciality.

Personal Characteristics

In order to be a successful attorney one must be interested in helping people and be able to communicate clearly with a variety of individuals, the uneducated as well as the educated, the rich as well as the poor. He must like to read for long periods of time and interpret detailed information. He must have a good sense of humor, be able to relax under pressure. He must be persevering, orderly and a stickler for details. A good speaking voice can also be a big help.

Advancement and Transferability

When I finish my work as a briefing attorney, I will be prepared to enter the arena of the courtroom. The practice of law in the courtroom is exciting, but it is very demanding. Through my work as a briefing attorney, I feel I am well-equipped to perform almost any type of work that the practice of law will demand.

With the achievement of a legal education, my chances for advancement are increased. In addition, I am not restricted to law-related jobs. I have also considered other occupations. I can open up my own law practice or become an attorney for almost any large business firm. Many lawyers also enter politics and run for various legislative offices.

The freighter on which I work transports goods across the Atlantic Ocean.

Captain

Since I joined the U.S. Merchant Marine ten years ago, life at sea has become a familiar routine to me. I am now the captain of a freighter, the U.S.S. Alameda. As captain, I have complete authority over the ship. I coordinate all the activities and am responsible for keeping order and discipline. It is my duty to be sure that the crew, cargo and vessel are safe at all times. When we are in port, I act as the shipowner's agent in conferring with custom officials.

My crew and I left the port of New York yesterday. We're transporting wheat across the Atlantic to The Netherlands. The harbor pilot guided our vessel out of the harbor into the open sea. I supervised the operation, assisted by my first mate, Julio Peña. Julio planned and supervised the loading of our cargo, and he will do the same for the unloading, but I have the final responsibility for the job. Last night, Julio briefed me on the assignments he is making for the crew. We have several new crew members on this voyage, and we're trying to arrange their schedules so they'll be working with more experienced deck-hands.

It's noon right now, and I'm on the deck, watching the steering. Assisted by the second mate, Ann Jennings, I attend to the navigation. Each day Ann lets me know the position of the ship at noon and other information, such as our speed, our course, and the distance to the next port we're making for. Then I make any changes in the courses that are necessary so that we will arrive at the next port at a convenient time. A great deal of electronic equipment is used on modern ships, so navigation is becoming more automated all the time.

The Alameda is a large cargo ship, so most of my work is supervisory, and I don't have to do a lot of active work. Because of this, I usually have time to stand on the bridge for one of the watches, and sometimes for several.

Conditions

The freighter on which I work is a dry-cargo ship which transports goods across the ocean. Captains also work aboard tankers, barges, passenger ships and other vessels. They sail not only on the ocean, but also on rivers and lakes. Since my crew and I are on an oceangoing vessel, we have to be away from home for long periods of time. My duties do not require a great deal of physical stamina. Our freighter is a large one, so I find myself coordinating instead of taking part directly in the work activities. At times, I think I have a rather lonely job, at least compared to the captain of a passenger ship who leads a very active social life, acting as host to his passengers.

My living quarters are clean and comfortable, and are larger than those of the other officers and seamen. Space on a ship is limited, so we live and work in rather close quarters. There are hazards in working at sea. Sometimes injuries occur because of falls. There is always the possibility of fire, collision or sinking.

There are many advantages for my job. My salary is excellent, and I have good fringe benefits. My vacation lasts for 90 or more days a year and I can retire after 20 years service in the Merchant Marine. I have pension and welfare benefits, medical care and hospitalization insurance.

Qualifications

After I finished high school, I went to the California Maritime Academy. I studied navigation, mathematics, nuclear physics, electronics, and many other courses. Then, after passing the Coast Guard examinations, I received a license as third mate. There are no education requirements for officers. I could have been content with three years' experience as a sailor in the deck department instead of going to college. I could then have been eligible to take the exams and become a third mate. However, it is difficult to pass the Coast Guard examinations without formal training. They require a thorough knowledge of navigation, cargo handling, and operations in the deck department. Also, it is easier to advance to the level of captain when you have a college degree.

To become a merchant marine officer, you must have good health, and very good eyesight and color vision. Deck officers begin as third mate for a year, and after that they take the examination for second mate. Then a year later, they can apply for a captain's license. Several years after receiving my license, I was given full command of a freighter on the Great Lakes. When I was in college, I had spent several summers working as a crew member on yachts and charter ships that were sailing along the west coast. This experience has proved useful to me in my career, for it helped me learn many practical skills needed for life at sea.

Related School Subjects

In high school, I took all the math and science courses that I could. This preparation helped me a great deal with my studies at the maritime academy.

Personal Characteristics

I enjoy life at sea, even though it can be difficult and lonely at times. I'm single, so I don't mind the long voyages as much as many of the crew members who are married. My interest in outdoor activities, especially boating, has always been high. In school, my favorite subject was science, and I try to keep up with current developments in this field.

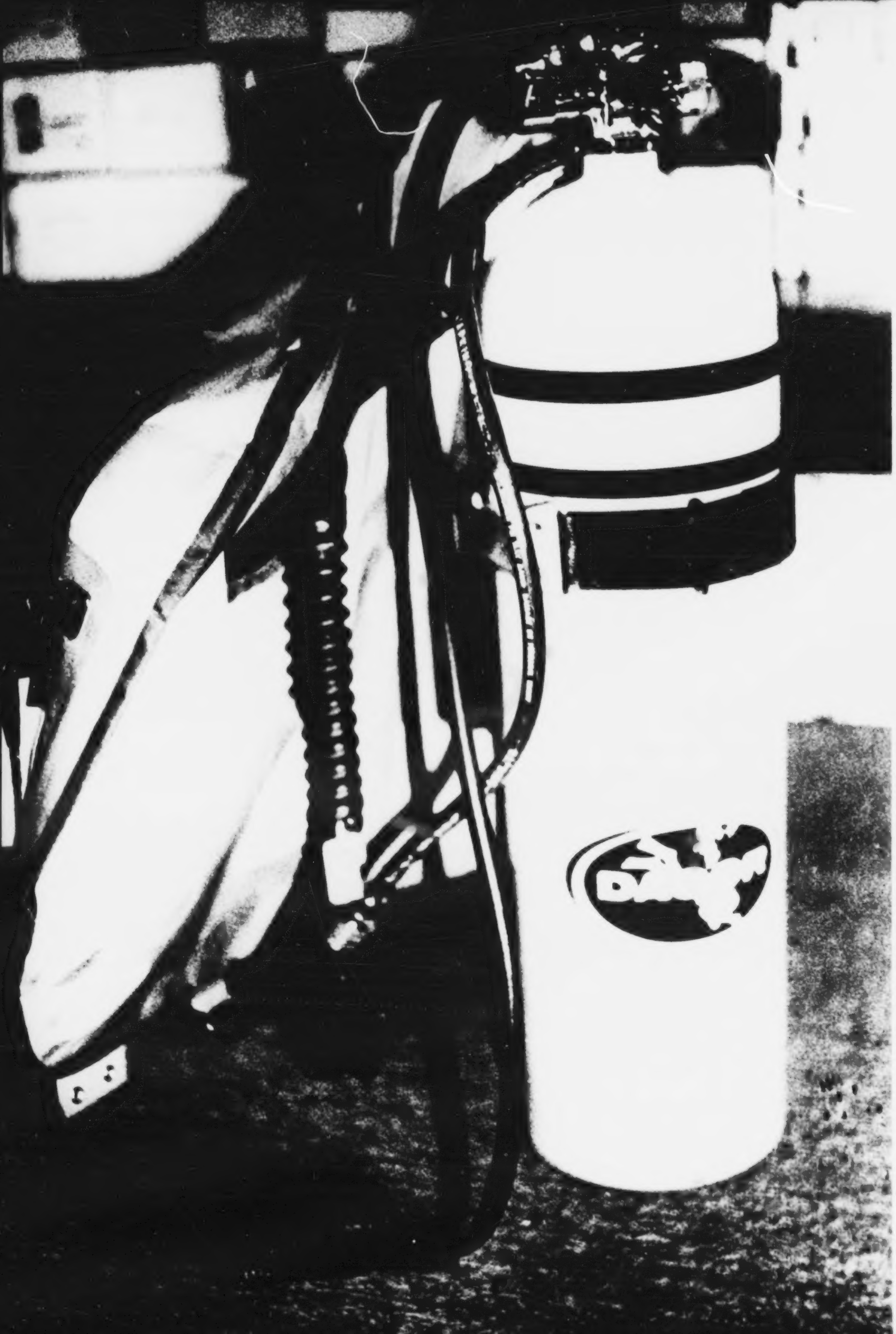
I like the responsibility of the position of captain, even though the job is a challenging one. I must exercise good judgment at all times, and I must be dependable. It is important for me to be fair to all the crew members and to act in such a way that they will respect me.

Advancement

Now that I have advanced through the deck department to the position of captain I have reached the highest rank I can. The more experience I gain, the easier it is for me to become captain of a particular vessel or to pilot a ship along a route in which I am interested.

Transferability

I'm planning to retire after I've completed 20 years in the merchant marine. I can then use my skills in working at a different job — for example, that of marine superintendent. One ex-captain friend of mine became a shipping executive after he retired. Others have worked on oceanographic research vessels or on ships that take supplies to off-shore oil vessels. My life is a good one as a captain because I'm doing a job that is useful and gives me personal satisfaction.



This is my scuba tank that allows me to 'live' under water.

Commercial Diver

Last summer I went on a vacation to the Bahama Islands. I stayed two weeks. I explored the coral reefs there. The beautiful world under the water was like a dream. It was very calm. There was no noise at all. It almost scared me, but I loved it. It was hard to leave, but I had to return to the real world of work.

I spend a lot of time under the water in my daily work. Even so, I do not see things like I saw on my vacation. I am a commercial diver. I work out of Corpus Christi, Texas. At times my work is simple and safe. It can also be hard and dangerous.

A diver depends on the skills that he or she has learned. A commercial diver should know at least two methods of diving. He or she needs several work skills, such as welding or obstacle demolition. A diver may do underwater construction, repair, salvage, exploration, or photography. At the top of the list, this fact still holds true: he or she must be a good diver.

I am good at skin diving, and also scuba diving. As a skin diver, I use a snorkel. This is a pipe to breathe through. I work in shallow water to collect specimens and to fish. I also do demolition and repair work. I try to remember everything I see underwater. I report what I see with care. My employers can see what is under the water only through my eyes.

To scuba dive is harder than to skin dive. I prefer to scuba dive, however. I think it is more interesting. The reason is that I have a lot of freedom. I wear a mask, and fins on my feet. I also put on a wet suit to keep me from getting chilled by the water. I carry air tanks, with a regulator, tied to my back.

As a scuba diver, I can dive deeper and stay under the water longer than as a skin diver. I am an experienced mechanic, so I can make repairs. I also do experiments with fish life. I have worked with fish in laboratories, also.

My friend, Carlos, is a "hard hat" diver. This type of diving calls for very heavy gear. A suit covers all of his body. He has to wear a hard hat, a special helmet. He needs leaded shoes and belts to keep him from floating to the surface of the water. He works in very deep water. This means he has to breathe through hoses. These are connected to an air supply on board a support ship or barge. Sometimes, Carlos must work under the water for long periods of time. It is a must for him to carry telephone lines underwater. He can thus keep in touch at all times with the helper on the ship. This helper is called a *tender*, a very important person on the work team. The life of the diver may depend on the tender.

Hard hat divers do underwater repairs to ships. This type of work may require underwater welding. They may go on salvage trips, to recover ships that have sunk. They may try to bring up treasures from long ago.

A few years ago, my friend, Carlos, helped in an interesting salvage operation. His team brought up some very old Spanish gold. Hard hat divers also help in off-shore work to recover oil from the ocean floor.

Carlos inspects, cleans, and fixes ship propellers. It costs less to do this work underwater. Ship owners can thus save the cost of putting ships in "dry dock." To "dry dock" costs a lot of money because it means taking the ship out of the water.

When a diver goes down 50 feet or more, his working time on the bottom is limited. This is due to oxygen supply.

It is good to do very deep diving with scuba equipment. (The letters in the word "scuba" stand for *s*elf-contained *u*nderwater *b*reathing *a*pparatus.) The scuba tank holds almost pure oxygen. This means the diver can work better. A hard hat diver has to breathe a mixture of air through his hose. Part of this mixture is nitrogen gas. This gas may get in the blood stream through the lungs. The gas forms air bubbles in the body. As the hard hat diver is brought to the top, he tries to breathe these air bubbles out through the lungs. It may be necessary to let the diver stay as long as two hours at one level to get rid of the air bubbles. This can be very hard on the diver. The water can be very cold and rough. A better way is to use a metal chamber shaped like a boiler. The diver can be lifted quickly out of the water and placed in this. It is called a "decompression" chamber. To decompress means letting the air pressure down a little at a time. This helps the diver. He or she can be warm and at ease while this process is going on. It can take several hours to decompress correctly.

A diver must have the air pressure released in the right way. If not, he may have the "bends." This is decompression sickness. The only cure is to be put back to the same pressure. The process then must be started all over again.

A diver can do almost the same work under the water as he can on the top. He can use a torch to cut or weld. He can use a saw, a hammer, or a chisel. He can pour concrete, and do many other things.

To keep a diver from having to go down and back up many times, there is now a special chamber being used. It is like a submarine. In this, divers may rest, sleep and eat between work sessions. They only have to go through depressurization once when they finish a job and are ready to return to the top.

Working Conditions

Working as a diver means hard work. On the job, I am always pulling, lifting, pushing, and carrying heavy things. I have to carry some work tools. The water can be very cold. Even my wet suit does not protect me very much. The hardest part of my job is the amount of travel there is. Sometimes a job may last only a short time. The point is that it may be in a far off place. The result is that I must spend a great deal of time in travel, to and from the job, back to my home base.

Diving equipment is always being improved. This makes such work a little easier and safer. The danger is still there, though.

Qualifications

To become a diver, one must have perfect health. He or she must know how to swim very well. One must have good use of both hands. It is important to have steady nerves, to reason and reach conclusions in a calm way. A diver cannot get upset. There can be many sudden crises. His or her very life can depend on staying calm.

I have wanted to be a diver ever since I first saw Jacques Cousteau on television. In high school, I read as much as I could on sea life and diving. After high school, I studied at the Coastal Diving School in California. It was possible at one time for a diver to learn on the job. Now the law says that one must graduate from a certified diving school.

There are many diving schools in operation now. In my diving school, I was taught how to use underwater equipment. I learned how to weld under the water. I also learned to do salvage and demolition work.

Before going to diving school, I had worked as a mechanic. I was also an amateur photographer. After I finished diving school, it was easy to find a good job. I had many skills, and I knew how to dive. Some divers are also scientists, such as oceanographers. These special fields require a college degree. Many of them also require graduate degrees.

Related School Subjects

Some subjects that I took in high school were helpful, such as math and physics. Mechanics and welding were also useful. If I wanted to start my own diving company, I would need to study general business courses.

Personal Characteristics

A commercial diver must know how to work as part of a team. His safety depends on working with others. I believe I have been a success for several reasons: I am strong; I do not tire easily; I am a good team worker; I do not get upset if something goes wrong; I have good use of my hands, even under the water.

Advancement and Transferability

My pay varies. It depends on the type of job, where it is, what kind of diving I have to do, and the equipment needed. At first, I got a job as a diver's helper. This paid me only minimum wage. Now that I am a trained diver my pay is much more. It always depends on the problems that each job may offer. Some divers may earn as much as $500.00 a day. The pay is more when a diver works in very deep water, for long periods of time. A skilled diver who is known as one to be trusted may earn a great deal of money. This is even more true if he has his own diving company.

While diving jobs pay well, the work is not always steady. There are always delays. The weather can cause delays. There can be problems with equipment. Sickness can cause problems.

At present, there is much work for divers. This is because there is more interest in exploring and drilling for oil under water. Scientists or science technicians are needed to work in underwater environmental impact studies. These studies check to find out what effect a project will have on life on earth. For instance, will the water be poisoned? Will the plant and animal life die? This is very important.

We must take care of what we have on earth. There is so much pollution in the ocean now. I remember a large oil spill off the Gulf Coast that ruined hundreds of miles of shore line and killed hundred of thousands of fish and fowl. At one time I had to dive at an offshore oil rig because there was a possibility of a leak. It was dangerous work but luckily it was only a minor problem that we solved quickly, because it could have become another major diasaster. Perhaps if all people could scuba dive with me to see the beauty of underwater life the world would be more conscious of pollution problems. I try to talk about my work and the importance of marine life at every chance. I have talked at schools in my area and at church and community meetings showing slides of some of the wonders under the sea, in the hopes of making people more aware of our earthy riches. Although I am not paid for these presentations, I feel that they are important to my work.

There is a possibility that I could open my own business if I hired others to dive, while I ran the business. Right now; however, I'm enjoying the job I have of diving into the underworld every day.

ENTREX 480

As a programmer I am familiar with all parts of the computer equipment.

Computer Programmer

If you had been born 400 years ago, you would have lived on a farm or in a small town. You would have done your work by hand or with simple tools. People manufactured most of what they used. They made their own furniture and clothing; housewives baked all their own bread and made clothes for their farmers. They used horses or other animals to travel and these animals also provided most of the power used in flour mills or for plowing.

In 1765 the steam engine was invented and with it the Industrial Revolution began. Enormous and fantastic changes in everyday life were the result. Factories were constructed and large cities developed. The steamship and the railroad transformed transportation, and later came electricity, automobiles, airplanes, radio, television, nuclear power — all the things of modern life that we are familiar with.

Many experts believe we are now at

the beginning of a new revolution brought about by data processing and the electronic computer. This "Computer Revolution" is still in its infancy. It promises to produce even greater changes in our way of life than the Industrial Revolution did!

Today the Computer Revolution is approaching faster and faster, creating a new industry and affecting almost everything we do. Every day more and more aspects of our lives in business, industry, science and government are being changed by this new force. The computer is already producing great changes in our daily lives; many of these changes are still invisible and unknown, except to those who are aware of what is going on.

For example, when you woke up and turned on a light or used the toaster, immediately some type of computer at the utility company monitored the power that came into your house. As thousands of other people also awoke, this computer went into action to control the flow of electric power, turning on generators and switching circuits so there would be enough power for all who were beginning the new day.

If you made a telephone call, a number of different kinds of computers went into action. As you dialed, a computer decided how best to complete your call, choosing among the many available circuits inside the telephone system. Another computer kept track of the length of your call, and when it was over it made a record to go on your monthly bill.

At all times an airplane's position, course and altitude are monitored by several computer systems. The passengers inside had their reservations made and confirmed by a computer.

If you went shopping in a large store, some record was made of what you bought that will later go into a data processing system. In this way the store can keep track of the many thousands of items on sale, reorder new supplies when inventory is low, and learn which items are selling well and which are not. The data processing system will probably handle the customer accounts as well, so bills will be sent and charges recorded. These are just some of the simple, ordinary, everyday uses of data processing. I could not even begin to list all the applications of this new industry.

As you can tell, I am very excited about the computer industry. This is because I am a computer programmer. My job is one of those that did not exist fifteen years ago. When I was in school I was not sure what kind of a job I wanted. Luckily, I did well in my math and science courses. That way I was ready for a job in computer programming.

Because this is a new industry, I want to describe the two phases involved in electronic data processing. The first is **development,** where the thinking and planning are done to prepare for computer operations. The second is **operations,** where the actual work gets turned out.

Let me give you an illustration of this type of work. First, some kind of problem has presented itself. It may be a business problem like a payroll or inventory account, or it could be a scientific or engineering problem, or a scheduling and control idea for a television station or a factory operation.

Second, the problem then goes to the project planner who is usually the Electronic Data Processing Manager. He will think about the best way to process data, whether it be manually, mechanically, electronically, or in some other way.

Third, the problem may then go to a computing analyst who knows about complex mathematical statements and formulas for solving problems. Usually the problem is in the engineering or science areas, though business problems now exist that require complicated math.

Fourth, a systems analyst will develop an overall procedure for handling the problem. This procedure will be something like a general outline without the exact details or specific instructions for each step of the operations.

Fifth, I, the programmer, come in action by putting in these specific instructions with every detail. The "program" consists of specific detailed machine instructions that tell the computer how to process the data. Before the computer can work on this, the program must be translated to computer language, which is usually a combination of letters and numbers. Two of the commonly used languages for this are COBOL (Common Business Oriented Languages) which is for business problems and FORTRAN (FORmula TRANslator) for scientific problems. These languages are not so hard to learn if you like math.

The translating process is also known as **coding,** and junior programmers are called **coders.** I must then test the coded program for accuracy by preparing a small sample of the problem and actually running it on the computer. This test is called "debugging." If an error comes up I must locate and correct it. Sometimes the preparation and "debugging" of a program may take months, or even years, depending on how complex the original problem was.

When I have debugged the program, the developmental phase of the EDP System is over and the keypunch operator starts on the operation phase.

Working Conditions

My office is located in the Data Processing Center of our company. In the same center we have the computers, keypunch machine and up-to-date technical library for us to use. The center is always buzzing with activity and with the gentle hum of the computers in the background. Because the computers are very expensive and delicate, the center is always kept very clean. Since this is a new industry we are always trying out new computer systems. We also have to do a lot of reading and studying to keep up with everything that is new in the field.

It is a very interesting and challenging job for me. My company provides the usual benefits: sick leave, paid vacations, insurance and retirement benefits. Also, I can go to school to learn more about programming, and the company will pay the tuition.

Qualifications

Computer programming is not for everyone. Some people are better suited for it than others. Do you enjoy playing games that require concentration and thinking, like checkers, bridge, cribbage or chess? Do you like to do crossword puzzles? Do you like to figure things out? In short, are you a person who likes to solve problems? I answered "yes" to all of these questions. If you answered yes, then you are suited for working with ideas in data processing as a programmer.

With a college degree the opportunities are without limit. In many places you can get into company training programs in computer programming. That is the way I did it. After college, I considered a commercial computer programming school, but it was too expensive for me at the time. Then the Rolex Company offered me a job as a programmer. They gave me complete training using their own computers.

Related School Subjects

As I mentioned before, the computer is being put to new uses everyday. Normally a good college education and computer training is enough to get a good job in almost any area. College courses in math, engineering or physics will open the doors for a programmer to scientific or engineering companies and laboratories. This might include nuclear laboratories or aerospace companies. You probably think that courses in speech and public speaking have nothing to do with programming, but I took these courses in school and now find that they give me confidence and poise in dealing with people.

Personal Characteristics

The choice that you make about your own likings is important. Ask yourself if you like people, things or ideas. If you like ideas and are a "problem solver," you will make a good programmer. Make that choice without thinking of anything else in your present personal situation. Your personality and tastes are the most significant factors in your future happiness and success in your work. If you are happier when you are working or associating with people, then probably sales work might be best for you. If you like "things" more and would rather be tinkering with physical things or mechanical objects, then maybe the job of console or computer operator might be best for you.

Advancement

There are several advantages in selecting careers in programming. First, there is high pay. Programmers are better paid than people with equivalent skills elsewhere. This is because of the great demand for and limited supply of programmers. Second, there is a lot of job security because computer programming is a growing, expanding field. By learning and working with skills in such high demand you can insure yourself a secure place for the long future.

From the position of programmer one can advance to systems programmer, systems analyst, scientific programmer, or to the management or sales part of the industry. Since I have been a programmer for four years, I have learned about scientific programmers, and I am hoping to become one next year when I get promoted.

Transferability

Because so many companies and organizations are using computers, they all need programmers like myself. Right now I can work in business, health, marine science, government and many more career clusters.

One of the planes that we fly to survey our territory is ready for flight.

Conservation Officer

The day before yesterday Frank Robertson came into my office looking a little sad. "My pecan trees are dying, Luís, and I can't figure out what's doing the damage. That's all I need now. Last month two calves died, and my irrigation pump broke down. I don't suppose you could help me with those trees?"

"Yes, Frank. I believe I can help you. Your trees probably have the blight that has been hitting the pecan trees in this part of the country. I've got a fungicide here that has been working for everyone else. Let me get some for you."

Frank brightened up and took the fungicide gratefully.

But today I am not a hero, at least not to Aaron Stephens. Aaron came storming into my office earlier today. "All right, Rodriguez. When are you going to stop just drawing your salary and start doing some work? Three times this month I've caught poachers on my land. Every time I caught them, those jokers were carrying off squirrels, beavers, or doves."

"Well, Aaron, I've been out to your . . ."

"Don't give me any excuses. I want those bums off my land, and right now!"

"Did you get their names, Aaron?"

"Names? Names! I don't have time to fool with names. I want those people locked up!"

Aaron slammed the door before I could say another word. I wrote a note to remind myself to drive out to Aaron's place by Friday. There is no way that I can be present every time the law is broken. My territory covers five counties, and when I fly over the region, unlawful hunters or fishermen often take cover when they hear my plane.

The office was quiet for the first time today after Aaron left. I had an opportunity to go through my files. I pulled out the game census cards for two of the people who work for me. They were out counting and tagging the deer in our five-county area. I knew they would need the old census cards when they finished their jobs.

Then Josué walked in, threw his hat on the chair and ran his fingers through his hair. "I need a plane for tomorrow, Luís. But David and Linda are going to be using both of them to inspect the damage that the drought is causing."

"What's the big hurry, Josué?"

"That shipment of fish we ordered is coming in tomorrow. I need to put them in Cray County Lake and Bois D'arc Bend as soon as possible."

"Yes, I remember. You're right. Let me talk to David and Linda. I'm sure we can work something out."

I looked through the aircraft records and found that both planes were due for a maintenance check today. David is in charge of aircraft inspection, so I left a note at the hangar for him to see me when he landed.

During lunchtime I ran over to the library to find a little quiet time for myself. I have to work on a speech that I am giving tonight at the Tenkiller Sierra Club. I plan to describe some of the more important federal conservation laws to this group. I have spoken on this subject several times, but I always want to review the laws a little more.

Before I meet with David, Linda, and Josué, I have just enough time to run out to Potear Creek. Linda believes the creek is becoming polluted, so I need to test the water.

As I drive out to Potear Creek, I mentally prepare myself for tonight's activities. I think of the difficult moments in a conservation officer's job: catching violators of game and fish law, inspecting property damaged by wildlife or nature, making arrests, being called to the site of a hunting accident, or watching the thoughtless destruction of wildlife and property by hunters and campers.

I will never stop doing whatever I can to prevent willful or ignorant misuse of nature. Like a doctor, I will diagnose and prescribe remedies for unhealthy conditions. Like a teacher, I will explain laws, safety rules, and conservation practices. Like a secretary, I will keep careful records of all my work and findings. Like a private investigator, I will look into reports of problems and wrongdoing, and like a gamekeeper, I will keep tabs on the conditions of fish and wildlife in their natural surroundings. And like a fool, I almost ran into the ditch while thinking so hard.

I use many types of communication, so language arts courses have proven very helpful to me. State and federal officials often ask for written or oral reports. Occasionally I have to write up a press release for a newspaper. Memos are my most common type of communication, but I also have to give speeches at times. Usually I feel as if I can communicate better **after** I have given a talk than during the talk. At that time, I get to meet people who are interested in conservation, and they share their concerns and ideas with me. Communicating clearly and easily in several ways is probably the most important part of my job.

Personal Characteristics

Many of my acquaintances tell me that my temperament is suited to this job. I am easy-going, I enjoy working with people, and I like tackling new problems.

I wouldn't want to sit at a desk all day, and my conservation career gives me enough action to keep me satisfied. I feel that the physical part of my job helps me keep my good health. I may be a bit of a perfectionist, but I use that quality for planning, directing, and evaluating activities which demand attention and detail.

My day's work is not always predictable, but I like that. The changes give me the chance to try out new ideas.

Transferability

Last winter my brother asked me if I wanted to leave this job to manage his commercial fishing fleet.

"What makes you think I would want to leave this job?" I asked.

"You never know," answered Ronnie. "Sometimes the same job gets dull. You may need other experiences that conservation doesn't offer you."

"I wouldn't even consider leaving my conservation work. But why would you want me in the commercial fishing business, other than for my knowledge of marine life?"

"Luís, you know that you manage your work team well. You keep good records of your organization and you motivate people to do their best. I think you have leadership qualities and an ability to communicate that would help you be successful in any business. But I understand your feelings, and I respect them. I won't push it."

Ronnie made me think about how the experience that I'm getting now could be useful in other fields of work. Any manager's job, whether in forestry, health, or transportation requires many of the same skills.

Some of these common abilities include planning work for a group, determining the kind of workers needed, interpreting orders and procedures handed down by a superior, and ability to communicate, to make decisions, and to take on responsibility.

Working Conditions

I spend about as much time in my car, plane or walking over the countryside as I do in my office. Some days it feels great to be outdoors, but when the weather is bad, it doesn't feel so great. This old car I drive has three colors of mud on the floorboard. Covering five counties calls for walking across a lot of soil.

Linda asked me yesterday how I keep from losing my temper more often. It's true that sometimes a hunter or landowner will ask too much of me, or some congressman comes around telling me, instead of asking me, what I need. But I have learned that bad feelings have a way of dying down if no one feeds them with more bad feelings.

I am close to the people I work with. We all know that we have valuable work to complete, so generally we all work together. However, I realize that I have the final responsibility for the project, and sometimes I have to give my staff members more work than is comfortable for them.

Our working hours are written as 8 to 5, but there are many days when we put in overtime just to keep up with the work load. I don't mind the extra hours too much, but I think it is because I don't have a family waiting for me at home. If I am not finished with my day's work until 10 p.m., I can pick up a hamburger on the way home and not worry about keeping someone waiting up for me. Someday I would like to have a family like David and Linda do. Then I would probably not be as comfortable with the extra hours. David and Linda leave exactly at five; David has a long drive to make it home in time for a quiet supper with his new bride and Linda must pick up her child at the sitter's before going home to cook dinner. We all enjoy our jobs, though, and the pay is fairly good.

Related School Subjects

The two most important skills of a conservation officer are verbal and clerical. For this reason, my courses in speech, English composition, typing, and business have been most helpful. Science courses such as biology, botany and agronomy are also important. Basic math skills are also useful.

Qualifications

After completing high school, I became really excited when I found a college that offered a degree in conservation. I took a number of physical, biological, and earth science courses. My meteorology classes helped in my conservation work as well as in my flying classes. Later on, I decided to get a Master's degree. It only took one year for me to get this degree. Meanwhile I took flying lessons, and soon after I finished my formal education, I became a licensed pilot.

The state hired me as a conservation officer about two years ago. Before I took this job, I worked in a County Agent's office for six years. That job gave me much needed experience for the job I hold now. Education, experience, and good health are the major qualifications for this work.

Newsrooms like ours are usually crowded with desks and computers

Editorial Writer

Charles' face is flushed. He is really interested in what he is saying, and he feels pretty strongly about it.

"Frank, we both know that this new bond issue isn't necessary. To pay for it, we'd have to raise taxes. Although our city needs improvement, we can't solve our problems by throwing money away on buildings."

Charles is a city councilman with whom I've become pretty good friends, although sometimes it seems that we disagree on just about everything. I had deliberately brought up the municipal bond issue, because I wanted to hear the other side's viewpoint.

My name is Frank Mora. I'm an editorial writer for the "Daily Sun," a local newspaper. About two weeks from now there will be a big municipal bond election in our city. A bond election is a way of raising money for public projects in the city, in this case for renovating the center of town. The trouble is, some-body has to pay for it - the taxpayer. Opinions in our town are very sharply divided on this issue, because it affects nearly everyone. To pay for the bond, the city would have to raise land taxes, and a lot of people feel that they are too high already.

I feel the money is absolutely necessary, and that like everything else worthwhile, it's worth paying for. There are a lot of reasons involved, and as an editorial writer, my job is to argue for them clearly and convincingly. That doesn't mean I ignore the reasons against my viewpoint, far from it. I try to communicate the reasons why the advantages of my viewpoint outweigh the drawbacks.

Editorials are opinions on important issues given in newspapers or magazines. Since they are involved with reporting the events of our commmunity and the world, most newspapers have something to say about controversial issues. Often the owner himself will write an editorial expressing his newspaper's position, or one of the editorial writers will write it.

Sometimes a newspaper will print editorials even if they do not agree with the owner's viewpoint. Often newspapers print the editorials of syndicated columnists, writers whose editorials are subscribed to by many newspapers, even when they directly disagree with a newspaper's viewpoint.

Working Conditions

My office is in the "Daily Sun" building, but I have a certain amount of quiet and privacy, unlike just about everyone else that works there. Even so, sometimes I'll get a frantic call from the owner or managing editor, asking me to write an editorial for the next day's paper. Then I really have to get moving: gathering information, talking with different people, and writing and rewriting my viewpoint until it is clear, and I hope, convincing.

Qualifications

A college degree, or even an advanced degree, is becoming more and more important to an editorial writer. Often, one will work in the newspaper business for a few years before writing editorials. I started out, as many newspaper people do, working for a small newspaper as a reporter. Working in a small town was a pretty good way to learn something about the way local politics worked, and how and where to get information, and who would give it to me!

Later, I was assigned to report on the state legislature for another newspaper, and after becoming more and more interested in the different issues dealt with there, I finally started writing opinions, or editorials, in these and other areas. Some editorials are written by people in politics and by people in "academic." That means university professors.

Related School Subjects

Even as a teenager, I was interested in world events. I remember watching the debates between Kennedy and Nixon when they were running for election, when I was about fifteen. I found it so interesting that I started thinking of going into politics someday. In high school I really liked to argue about politics, but more and more I wanted to get to the bottom of things, to find out what was really happening.

In college I majored in journalism and joined the debate team. I took a lot of courses in political science and history and learned to clarify my ideas. Even so, it was difficult for me to write well, but it helped when I realized that the best thing to do was just to work on it and rewrite it until it finally came out the way I wanted it. I am very glad I took typing and composition!

Personal Characteristics

I have always enjoyed reading and talking about world events and political issues. In fact, I spend many hours a day researching different issues. My friends used to kid me about being so "logical," but I surely need to be in this work. Something that was a lot harder for me to learn was to be open minded and be able to update my opinions, and to keep learning. Recently I've been trying to become more versed in African history and culture, to better understand the situation there.

Working as a reporter helped me learn how to ask questions and to be alert for details that might seem insignificant to most people, but that might provide an important clue to understanding what is going on.

Advancement and Transferability

Someday I would like to become respected enough as an editorial writer to become a syndicated columnist. I would write columns or editorials on different issues, with different newspapers subscribing to the columns. I am very interested in government affairs at the state level, and would like to give them more attention by perhaps writing articles for magazines.

Some editorial writers move into the managing editor position of their newspapers. The managing editor is the person who runs the newspaper. As for the near future, our newspaper is planning to create an editor's position for the editorial page, and perhaps I'll be chosen. My office might not be as quiet then.

The same qualities that make a good editorial writer can be used in other fields, including magazine editing, speech writing, or other kinds of writing. Writing educational materials and books is another possibility. But for now, back to that municipal bond problem.

Cargo ships and oil tankers wait in port ready for tomorrow's voyages.

Electrician

Tomorrow my cargo ship leaves for South America from Houston, Texas, for a month's cruise. The cargo ship contains farm machinery and spare parts. I have been assigned to the engine department. My name is Roberto Salinas, but everybody calls me "Beto." I am an electrician. My biggest responsibility is to make sure that all machinery, including the ship's generators, runs properly. My boss, the chief engineer of the engine department, supervises the entire engine crew. The crew is made up of several different kinds of workers: deck engine-mechanics, firemen, oilers, wipers, reefer engineers and other electricians. Making adjustments and repairs on the electrical systems, motors, and generators keeps me quite busy throughout the voyage.

This morning I checked the generator's commutator and brushes. Sometimes they wear down and need to be replaced. Today the brushes only needed cleaning. Regular upkeep helps prevent complete breakdown of machinery.

After lunch I received a message that there was a short circuit in the wiring somewhere in the lower deck. When I went down to the lower section, I found that the lights and the power were off. I tracked down the trouble and found it was in the wiring, so I fixed it. Everything else was fine; the insulation was in good shape. The power came back on again. I never know when emergencies like this will happen. Wiring problems can sometimes start fires, so I have to take care of these repairs as quickly as possible.

Working Conditions

Life aboard ship is very confining because of the limited space. Some voyages last several weeks, like this one, or even months. One time I worked on a cargo vessel that sailed to many distant foreign ports. I like travel and adventure, and I can do what I please. Some of my co-workers who are married get tired of the long separation from their families and prefer to work in the shipyards as electricians.

The sea appeals to me. I like keeping big motors working. The pay is good, and so are the fringe benefits. I earn a paid vacation up to 80 days, health and life insurance and retirement with full salary in twenty years. This makes up for some of the disadvantages, such as having to work at odd hours.

Aboard ship my duties can be hazardous. When I am installing electrical wiring, I am always careful about safety. I run the risk of electrical shocks and burns from live wires. Fortunately, because of today's safety practices and equipment, the accident rate is low. When at sea, a less obvious yet very real danger is the threat of the ship catching on fire, colliding or sinking.

Electricians need to be alert and efficient. Their efficiency is increased by keeping the needed tools and testing equipment organized and near at hand. Some of the equipment can be damaged through careless use. For example, I use an ohmmeter when checking some of the components. The ohmmeter is a small instrument that detects what parts of the wiring system are defective. I learned never to use an ohmmeter to check a live circuit power supply or battery; doing this damages the meter beyond repair.

An electrician needs to stand in front of machines for long periods of time because machines need to be watched closely. If trouble occurs, then the motors have to be taken apart and completely inspected for damage. This type of work requires patience and confidence. There are times when I work in cramped places and in awkward positions. When using small tools I must be able to work rapidly and accurately with my hands. Working with color-coded wires requires good eye-sight.

What attracted me at first to a career related to electricity was an incident which happened when I was a teenager. One summer, my neighbor was putting a TV antenna on top of his apartment. I offered to help him. We wired the system and the whole process fascinated me. I began to read and design simple wiring systems. Later I worked as an apprentice for an electrician who contracted to do some wiring for some new ships built during the Vietnam conflict. This gave me my basic experience with electrical systems on ships.

As I travel from one part of the world to another, one of the changes I have to deal with is climate. If I leave Houston in the summer time, for instance, it is winter time in Rio, so I have to pack a variety of winter and summer clothes.

In order to get a job on any ship, I had to be certified as an electrician by the U.S. Coast Guard. I also needed a health certificate and a physical examination. Having gotten all of this paper work out of the way, I then had to sit at a union hall until I got a "berth" — an assignment. This process of waiting can range from one day to several weeks.

The Coast Guard and Merchant Marines list several requirements for applicants. I received my training through hands-on experience at the ship yards and my technical training at Bay Shore Technical Vocational High School near Houston. Some of my buddies received their training in the Armed Forces.

Related School Subjects

Some of the subjects I recommend to anyone who wants to be an electrician are math and science courses, including physics. Drafting and mechanical drawing will also help. I was also fortunate to live in a city in which there were magnet schools offering technical career training.

Advancement

The Merchant Marines offer electricians and other crew members possibilities for advancement and provide examinations at different levels from time to time. This way I can advance in salary and rank.

Personal Characteristics

In order to hold my kind of job, one has to have mechanical aptitude and abilities. Since I enjoy traveling and the sea, I combine my interest and life style with my career. Being able to get along with others is definitely an asset when I have to work and live with others in a small space.

Transferability

If I ever decide to change occupations I could become a construction electrician, work in a shipyard or start my own business. A friend of mine who was a ship electrician is now working for the IBM Company, while another is working as a crew member for a private oil company which does oceanic research off the coast of Africa. I once had a job offer as a technical instructor for a career academy in San Francisco, California.

Many important decisions are made in our conference room.

Executive

I am sitting in a conference room with the president of our company, along with members of the engineering and finance departments. We are discussing the development and sales potential of a new electric car. Mr. Jones is president of our company, Future Car Inc. He has told us that he thinks we should develop and sell a four passenger electric car for people to drive around town and on short trips. He thinks the time is right for such a car.

Mr. Jones has asked the engineering department to design such a car and to report to him in six months. I am the vice-president of the sales department. Mr. Jones has asked me to determine the demand for an electric car and to put together a sales plan within six months.

Mr. Jones reminds me of a math teacher I had in junior high school who used to give the students very difficult homework. Now that I have this responsible job, I am glad I had teachers who taught me discipline.

As the vice-president of the sales department I have complete responsibility for the operation of my department. There are five other departments in our company — engineering, finance, manufacturing, accounting and training. Each of these departments has a vice-president as its head. These vice-presidents and I report directly to Mr. Jones, the president. Together we make the decisions and take the necessary action to successfully run this company.

When I was a boy I always liked to be a leader when we played; luckily I also did well in school. I did not like all the courses I had to take, but I tried to do well anyway.

As the vice-president of a large department, I have a staff of twenty people working under my supervision, including a personal secretary. Some of the people on my staff have many years of experience. In order for me to be a good executive, I have to make sure that my staff does a good job. I also try to motivate them and see that they are satisfied with their work. So it is very important for me to enjoy working with people and to be a good leader. My most important job is to set goals and objectives for the sales department. I then have to see that plans are developed for attaining these goals and objectives. I have to make sure my department has enough people, money and time to meet our plans.

On a day-to-day basis, I have to make alternative decisions when our plans don't go as we hoped. I also attend many meetings with people from the other departments. Sometimes I take trips by airplane to other cities to attend conventions or to talk with our salesmen. It is a very demanding job, but one which I enjoy very much.

Working Conditions

My office is in a modern building where our company is located. My secretary sits outside my office. We keep a filing cabinet with copies of all our correspondence and sales plans. I keep a conference table in my office for small meetings. I also have a telephone which I use constantly to talk with executives in other departments. Against one wall of my office I keep a bookshelf full of sales and management books which I use very often.

My company provides the usual benefits: sick leave, paid vacations, insurance, and retirement benefits. On business trips all expenses are paid.

Qualifications

A high school diploma and a college degree are required for a job like mine. A master's degree in business management is also very helpful. The broader a person's background and experience the better; however, one should also have a lot of just plain common sense.

Related School Subjects

To be a good executive a person needs to be familiar with more than his department and what is done. Because all of the departments are related to each other, each manager must know how his department affects the others. Thus it is important to know a little bit about engineering, manufacturing, finance, accounting, etc. One good way to start learning about these other areas is by studying different subjects in school, even though you might think that you will never use this knowledge. I would recommend math, accounting, physics, and, of course, business management courses. When I was in school I took these same courses and many more, and for a long time I thought they had been a waste of time. But as I progress in my career, I find that these courses are very useful. I sometimes wish I had taken even more such courses.

Also, because an executive must work closely with people all of the time, I would recommend courses in sociology, speech and public speaking. They will give you confidence and poise in dealing with people.

My father used to tell my brothers and me when we were young that the most important thing in life is to be able to get along with other people. I have found that this is especially true in my job. All day long I am in contact with other managers and with the people who work for me. When we disagree about the solution to a particular problem, we don't take it personally. We know that everyone has his own opinion and that we can all learn from one another.

Also very important is the willingness to work long hours when it is necessary. Sometimes the solutions to problems in business are not simple, so one must study the matter for a long time before arriving at a solution. It is important to maintain a positive attitude at all times, especially when you are an executive.

Advancement

There are many opportunities for advancement when one is a business executive. There are opportunities to become a vice-president or even a president of the company. Promotions sometimes come in the form of money, a bonus, or even a bigger and better office.

Transferability

Once one has become a successful executive the opportunities in other areas are almost endless. What is important is that an executive know how to solve business problems and manage people well. For example, an executive in sales can easily work in Marine Services, Agribusiness, or any other business that has a product to sell.

Paperwork is a necessary part of the FBI agent's job.

FBI Special Agent

As I leave my office, I find myself having to come back to answer the phone. Since every phone call I receive may be very important, I know I can't ignore it. The calls I get on the job may be a matter of life or death.

I began my career as an FBI Special Agent just five years ago. FBI is the abbreviation for the Federal Bureau of Investigation. My work involves investigating violations of federal laws such as bank robberies, kidnappings, fraud against the government, theft of government property, mail fraud, espionage and sabotage. Since I am a part of a fact-gathering agency, I function strictly as an investigator, collecting evidence in cases in which the United States is or may be an interested party. The FBI is responsible for protecting the security of the United States and for investigating any subversive acts that might be threatening to security.

My day usually begins with a phone call from the office. As a special agent, I can communicate with my supervisor either by phone or by radio about assignments. I never know what type of case I will be assigned to, but because of my specialized training I usually work on cases related to my background. I interview people who have information that may help in my investigations or who may be suspects themselves. Since my work is highly confidential, I can't disclose any of the information gathered in the courts or in the course of my official duties to unauthorized persons, even members of my own family.

Working Conditions

As a special agent, I am subject to call twenty-four hours a day and must be available for assignment at any time. My duties call for quite a lot of travel, for I am assigned wherever I am needed in the United States, Puerto Rico, or perhaps another country. I have to work in all kinds of weather, year around, inside and outside, because I have to interview people wherever they may be working. Some people have the impression that my job is dangerous. It is relatively safe, although since the element of danger does exist I have to remain in top physical condition. I frequently work longer than a forty hour week, and I may receive overtime pay. My job provides me with paid vacations, sick leave, and retirement.

In performing investigative work, agents have at their disposal a vast network of communication systems and the crime detection laboratory in Washington. Fingerprinting, ballistics, documents and photography services from the laboratory are used by law enforcement agencies around the country to gather factual evidence for use in trials that may clear the innocent or convict the guilty.

FBI agents usually wear ordinary business suits or dresses, and those involved in potentially dangerous work may be permitted to carry firearms for self-protection during investigations.

Qualifications

An FBI special agent usually must be a graduate of a state-accredited law school or college. Those who will go into accounting related work must have at least three years experience in accounting and/or auditing.

Every applicant must successfully pass very rigid examinations including a rigorous physical test, and oral and written tests which examine the applicant's knowledge of law or accounting and his ability and aptitude for meeting the public and conducting investigations. In addition to this, exhaustive investigations are made into the applicant's character and background.

The potential candidates must be in excellent physical health, have good eyesight and hearing, and be free from physical defects. They must be able to stand rigorous physical and emotional strain.

Related School Subjects

As a youngster, I saw a lot of crime committed in and around my neighborhood. I was a freshman in high school when I first thought about a law enforcement job, so in high school I took social studies and Spanish along with the other regular courses. Since my days in high school I have been interested in a profession that would be a personal challenge as well as a contribution to society. I was vice-president of the Latin-American Student Forum in high school. Later, I ran for student government president in college but was not elected. In those days, with leadership experience and involvement in the community, I even dreamed of becoming Director of the FBI or Attorney General of the United States.

The FBI has a special school for agents at the FBI Academy at the Quantico, Virginia, U.S. Marine Base. This intensive and extensive training lasts fourteen weeks and includes studies and simulations in rules and regulations, finger printing, firearms, defensive tactics and criminal law.

Personal Characteristics

My boss told me that my honesty, integrity and understanding of human nature are some of the reasons that I am a successful special agent today. I remember my father telling me that I had good judgment and was a quick thinker. I have to stay calm in an emergency and keep many things to myself.

Since most agents work alone, they must be self-controlled and self-disciplined. During their routine investigative work, agents must demonstrate sound judgement, diplomacy and tact.

Advancement

FBI agents are eligible to receive periodic salary raises within the grade set up for their positions. Raises are, of course, dependent upon satisfactory work performance. Advancement comes from within the ranks of the organization itself. Some of these positions are for special agents in charge of field offices, inspectors or field supervisors.

In the work of the FBI, training and education never end. Workshops and mini courses are continually being held to teach new methods and techniques and to keep employees up to date.

Transferability

With my background and skills I could probably work for an insurance agency as an investigator, or even become a lawyer with some more course work. Perhaps one day I may open my own agency.

Most employees of the FBI are career employees and remain in the agency for life. Promotions within the agency are based on merit and not retirement or death vacancies. Agents that leave the FBI, being lawyers or accountants, find similar investigative work in other governmental agencies or in free enterprise and business.

At home I enjoy raising colorful tropical fish.

Fish Culturist

My bones ached so much last night I thought I would never be able to go to sleep! Who would think that a professional with a college education was working at hard physical labor — and enjoying it! My crew and I were busy for about 16 hours transferring all of the fish from one tank to another because the water had become foul and the fish were beginning to die.

I am a fish culturist. I call myself a fish farmer because I raise fish for the commercial market. I work for Mr. Blake of Fish Farms, Inc. At the farms, we grow fish much like a regular farmer grows crops such as wheat, corn, or fruit. We also have plots but we call them tanks. In these tanks we place the small fish and care for them until they grow large enough for the market. Although some fish farmers buy fish that are already hatched, we prefer to hatch our own.

We place the eggs (sometimes called

"roe"), which have been scraped off of the female fish, in small pans. These eggs are covered with warm water. Male glands are then spread over them. This is so that they can become fertilized. When the eggs start swelling, we know that they have been fertilized. Soon fish will hatch. These fish are called the "fry." When the fry are placed in the tanks they must be cared for very carefully. Some fry are placed in larger pans before they are released in the tanks. This depends on the type of fish and the condition and size of the tanks.

In today's world, the constant increase in population and the resulting demand for food make fish farming an industry with a great future because much food can be grown in a limited space. At Fish Farms, we raise fish for the commercial food market. Other fish farmers grow them for stocking rivers and ponds to improve the sport of fishing. These farmers are dedicated primarily to the science of conservation and wildlife technology. Others raise fish for the commercial market, but not for food. The fish they raise are special, mostly tropical fish, to be sold as pets for family and store aquariums. These fish generally have bright colors and interesting shapes. They are usually small, but some may be as large as small sharks.

Some hatcheries specialize in experimentation. They determine what conditions are necessary for good fish culture. They make discoveries that benefit those of us in the business. Their discoveries made the raising of 200 million salmon and trout possible in California. These scientists also engineered the successful introduction of Pacific Salmon (Coho) to the Great Lakes. Now a new salmon industry is developing in the Great Lakes area. There are also many tons of catfish grown on catfish farms in many parts of the world.

Our farm is not fully mechanized; a lot of the work entails hard physical labor. Cleaning the ponds and maintaining some of the equipment takes up much time. I care for the eggs, feed the young, check water temperature and salt content, and check for diseases or conditions that will slow down the growth of fish or plant life.

I have many workers helping me, but much of the work is so technical that I have to do it personally. Mr. Blake is the farm superintendent. He is a fish culturist, too, and used to be responsible for all the details before I was hired. Now he dedicates himself to studying the market and to planning for expansion of the operation. He is planning to open a processing plant here. When he does, all the operations from hatching to packaging and freezing will be done in one place.

Working Conditions

Working conditions are as varied as in other small industries. Fish culturists in other settings have more closely defined tasks. Some spend most of their time in laboratories studying specimens that have been brought to them and setting up controlled conditions for experiments. Others spend their time outdoors where the fish are found. They live under all kinds of conditions, sometimes for months at a time. My work on the fish farm does not take me away from home for long. My home is close to the fish ponds and is very pleasant because it is near a river. Our homes have been built up wind so that the odor of fish does not bother us except when the wind changes direction. Those of us who handle the fish, the eggs, or the food have the odor of fish on our hands and our clothes.

For that reason the company provides a plentiful supply of work uniforms and good bathing facilities. Most people that work here do not mind the smell of fish. I don't think the smell is any worse than that of a stock corral or a kitchen when fish or meat is being cooked.

I started earning a regular salary with only a bachelor's degree, and am now earning $2,000 more after two years of experience. Some people start at minimum wage, but they are paid extra for overtime. Junior colleges prepare technicians in two years and these sometimes start earning double the minimum wage. If they continue studying while working, they can become professional fish culturists in less than four years. The Sea Grant College Program is helping many people prepare for this profession through grants for work-study programs, indicating the federal government's interest in the development of this profession. Although the government's main interest is in developing marine (salt water) scientists, fresh water scientists are also included. Because I specialized in studying fresh water fish, I am really a limnologist rather than a marine biologist. Both come under the general area of aquatic biologist, especially if they also include the study of aquatic plants.

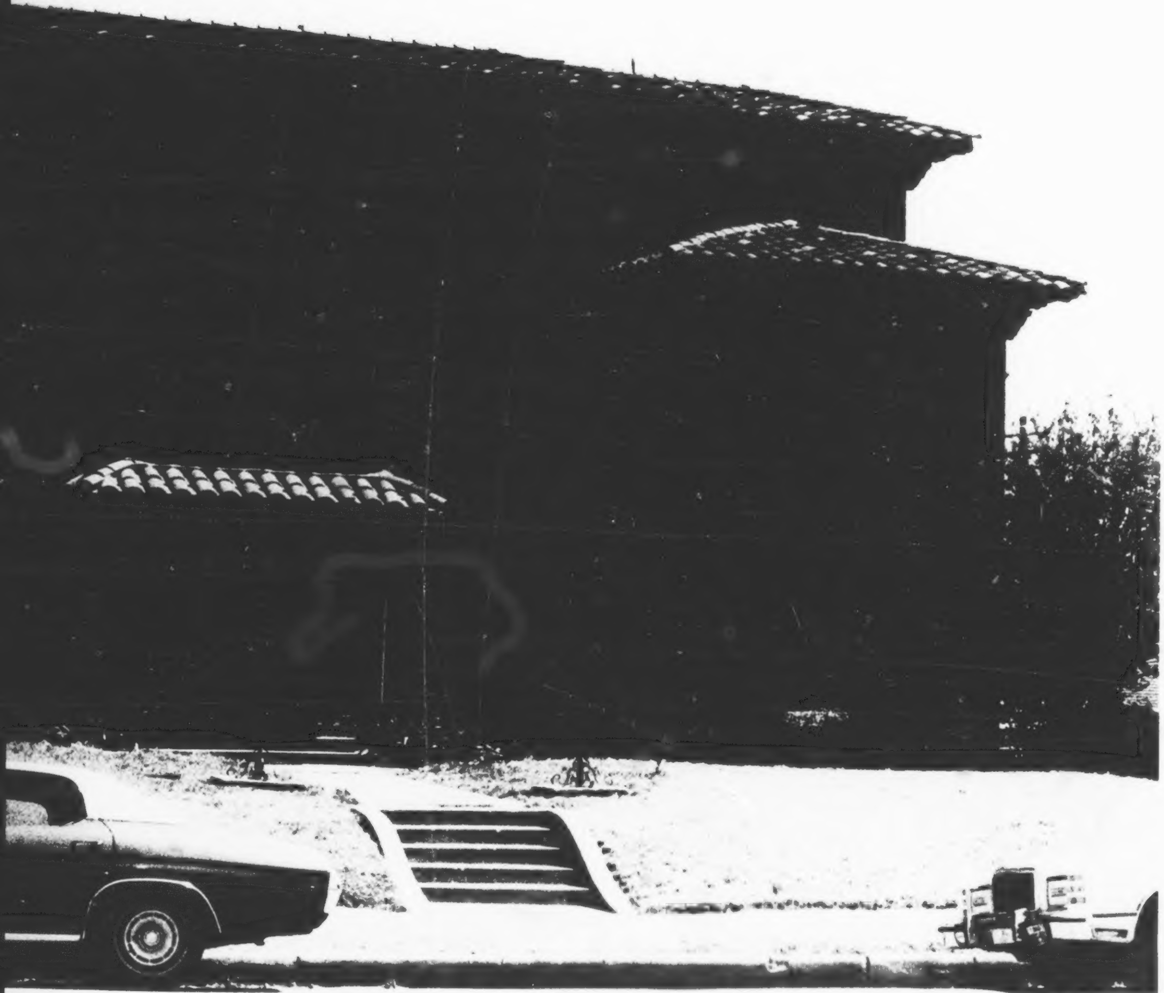
Qualifications

Fish farm workers should have good health and physical stamina. For a fish culture technician, an associate of arts degree from a junior college is required. For a fish culturist, however, a bachelor of science degree is required. Higher degrees, including the doctoral degree, or Ph.D., are necessary for specialization in research or teaching or for directing research projects. Since they all require experience, it is common for aspiring scientists to start with a bachelor's degree and continue studying while gaining experience. Some high schools are preparing their students for entry at the technician level. This is a good route for early preparation in this field. It is not uncommon for high school graduates with this training to start with an excellent salary even in temporary summer jobs.

Much of the work, including the advanced scientific tasks, requires hard physical labor and long periods of time in the field, perhaps under primitive living conditions. Those who love the outdoors and who have had experience camping for long periods of time find this work very enjoyable. At times, however, these camping trips are made during severe weather conditions, and the prospective scientist should be prepared for this too. Some who work in laboratories or fish farms may never have to endure these harsh conditions, but advancement is not as likely for them. As in most scientific work, neat handwriting for note taking and good command of the language in both oral and written reports is essential. There are no certification requirements, but the federal government requires passage of civil service examinations for entry and advancement. Some states have physical requirements while others have residency requirements, especially in the wildlife conservation specialization. Visiting hatcheries or working during the summer in some area of fish culture is helpful before making a final commitment to this type of work. A leading scientist also recommends aspiring aquatic scientists to keep one foot on land until they are sure this profession is what they like.

Advancement and Transferability

Just as Mr. Blake advanced to farm superintendent, I also have the opportunity to advance. As soon as the processing plant is set up, I will be placed in full charge of the hatchery and ponds. If I continue to learn, I may advance to superintendent, or I could even start a fish farm of my own. In private industry a higher degree is not needed for advancement as it is when one works for an agency of the state or of the federal government. The work here is harder, though, because there are some tasks that must be done, and there may not be enough personnel to do them within a regular eight-hour day. I don't mind it because this extra work sometimes leads to a bonus at the end of a profitable season. I am also becoming acquainted with many scientific aspects of the business. If I were working in research, I would have to become a specialist in a narrower field. It would be difficult for me to transfer to government work because I have not continued specialized training. There would be no difficulty in moving to another job in the fish farming industry. Since more and more of these farms are being set up, my future as an employee or as an owner of a farm is fairly secure.



Traveling and staying in interesting hotels like this one in South America is one exciting part of my job.

Foreign Correspondent

The alarm goes off, and I reach to turn it off. Why in the world is that thing set at five o'clock? Then, slowly, I remember where I am. I'm in a beautiful hotel, the Copacabana. It's true that sometimes I really get tired of traveling so much, but even after fifteen years as a foreign correspondent I still get a kick out of staying in nice hotels, and seeing new places and meeting new people.

Besides, there are a lot of contrasts in my life as a correspondent. Today I'll be going out to a remote area for the inauguration of a dam, and the greater part of next week I'll be visiting the other side of town for an article I am writing on poverty in this country. Most of my time is spent in the major cities of South America, reporting on important developments in their politics and society.

My name is John Porras, and I'm a foreign correspondent for an American newspaper. The majority of my assignments are in South America, but a few months ago I spent a few weeks in Africa, covering a story there.

It's a funny thing about this job of mine. I'm always being sent where something is happening, all right. Strikes, elections, sometimes even a revolution or an earthquake — when all the tourists are leaving, I'm arriving. I suppose I am sort of a reverse tourist! This afternoon, I fly back from the dam dedication for an interview with the Minister of the Interior, a very important official in this country. I've been preparing for a week now for this interview, trying to decide what questions to ask him, and just as important, how to ask them. Because of recent disturbances, civil rights have been suspended and there have been a number of people put in jail for political reasons. General Pacheco, the minister, finally agreed to the interview, and I must do a good job now that I have this opportunity.

Tomorrow I have several interviews: one with a member of the opposition to the government, and several with local journalists. One of the interviews is at nine in the evening. I don't turn down a chance for an interview I need just because it's not convenient.

Working Conditions

Some days, like today, I'll spend the whole day, including the evenings, going to different functions and interviewing people. Whenever there is an important development, I try to write my report as soon as possible, even if it means staying up all night to finish. On other days I find myself with large stretches of free time, and if I'm not waiting for a call, or catching up on an article, I can go and see the city and its people. Some correspondents, friends of mine, tell me they are often bored, but there never seem to be enough hours in the day for me. Aside from trying to know the places I'm in, I also keep up with what is happening in South America in general, as well as in the world. I think staying informed is very important for a correspondent.

Occasionally, I find myself in a situation which involves some physical danger, but not very often. At those times, I'm usually so involved in the event, trying to record everything possible so as to report it, that I'm not afraid until it's over!

Despite the satisfaction that I find in my work, it's really hard on family life. A few years ago, my wife, daughter and I moved to a South American city so that I could be with them more often. I think that Kay likes it down here now, although it wasn't easy for her to get used to at first. Even now, I'm often away from home, and although she hasn't complained, I know that it's hard on her and my little girl.

Requirements

For any journalist, it is becoming more and more important to have a college degree, and some correspondents have obtained advanced degrees.

Many correspondents start out as

local reporters for newspapers, and some start out as independent contributors. Foreign correspondents are generally selected; there are no applications. In any case, learning to write clearly and intelligently is essential. To get all the information I need for an article, I have to be very persistent. Usually it's up to the correspondent to find and interview the people that can provide him with important information, and his determination and ability to do it will determine how well he does his job.

Related Courses

In high school I took a course in typing, and it has been indispensable. Sometimes I wish I had also taken shorthand. In college, I took a lot of courses in history, political science and economics, as well as my courses in communication and journalism. Other courses that have helped me understand the countries I have been in are psychology, sociology, and anthropology, all of which study man individually or in society.

In my house we spoke Spanish, and I improved my use of it by taking courses in high school and college. Now I'm trying to learn French, which might help in my job.

Personal Characteristics

I've always had a lot of curiosity. From childhood, I have always questioned just about everything. When I reached junior high, I began reading magazines, books and newspapers, especially on world affairs. I remember the first time I realized that two different magazines gave different versions of the same event. I realized that we depend on journalists, for all of our information and that a lot depends on how well they are able to get to the truth. That drive to find the truth, and my eagerness to know the world led me to think about a career as a foreign correspondent. It has taken some effort to learn to work on my own, because it's easy to postpone things. As we say in Spanish, "Mañana, mañana!"

Advancement and Transferability

Some correspondents are free lance; that is, they write articles and sell them to different publications, or they are paid by the magazine or newspaper to do a certain assignment. Once a journalist establishes a good reputation, and develops his sources of information, he can do well financially.

Many reporters return to their newspapers or other newspapers and take editorial positions. Some of the big newspapers have branch offices in different parts of the world where information assignments are handled for that region. Last month my chief back in the States informed me that our newspaper was going to establish an office here in South America and that I was to be appointed as the first manager. I won't have the independence I had before, but I think I'll enjoy the responsibility, and I'll enjoy being with my family more.

My hearse shines like a piece of jewelry when I get through with it.

Hearse Chauffeur

I haven't had to work very hard so far this week, but I expect to be pretty busy today. My boss is Albert Torres, the funeral director of Sound Harbor Funeral Home. Mr. Torres told me when I checked in for work this morning to have the hearse ready for 10:30 and 3:30 services today.

This machine shines like a piece of jewelry when I get through with it. I use a special cleaner on the chrome fittings, and I wouldn't touch the car with anything but a chamois cloth. I vacuum it after every use. Mr. Torres has always found the hearse clean when he has needed to use it.

I wouldn't tell Mr. Torres, but I feel like this hearse belongs to me. After all, I'm about the only person who drives it. I know every sound that engine makes, and I can't keep from smiling when I overhear people commenting on how comfortable it is.

Our 10:30 service this morning is to

be held at St. Luke's Church. We often have services there, so I don't need any instructions about what to do this morning. Rey and I carry the casket out from Sound Harbor to the hearse. I place a spray of flowers over the casket and drive to the church to prepare for the service. After the service is over, I drive the hearse up to the entrance to receive the casket. I never fail to feel the dignity of this solemn trip to the cemetery.

When we get back to the funeral home, I give the hearse a light cleaning. I eat a quick lunch and then I take one of the limousines to fill it with gasoline; I inspect the car to make sure it is clean and running well. By now it is 2:15, so Mr. Torres gives me the address of the mourners home and I drive out to pick them up.

I never try to comfort the mourners because I am not good with words and because the most important thing I can do for them is take care of some of their physical needs. I open the door for the grandfather and the sisters of the deceased and help them into the back of the limousine. I hope to express my concern for them in the way I drive. After the funeral and the burial services, I drive the mourners home. Then I report to Mr. Torres and I give him a record of the mileage and expenses for the week.

"Listen, Rick," says Mr. Torres. "I need you to work a little overtime today. The morgue has a body that must be picked up and brought here for embalming. But you should be through by 6:00 or 6:30."

"I'll leave right now, Mr. Torres," I answer.

Mr. Torres knows that I do not mind working overtime. My services are necessary and I feel proud to be needed. Usually I work from 9:00 to 5:00, but today I'll be working until 6:30.

Working Conditions

I do quite a bit of work outside, cleaning and taking care of the cars. They are air conditioned and very comfortable.

I do not feel at ease talking at length with people, and so this job suits me very well. I am not required to have conversations here, and I get to spend my time with the machines that I enjoy driving and working on. My working hours are fairly regular. I have learned what is expected of me and I carry out Mr. Torres' instructions as best I can. Robbie, my roommate, says that my job is too routine, but I feel more confident in a position where I know clearly what my daily duties will be. It also gives me a secure feeling to know that my retirement and health insurance are taken care of by Mr. Torres.

Qualifications

When Mr. Torres interviewed me for this job, he seemed most interested in two qualifications. He wanted me to have a good driving record, and he wanted to be sure I could follow his instructions to the letter. Mr. Torres was pleased that I already had a driver's license and that I had done well in high school.

Rey, another driver here, showed me how to clean the limousine and how to treat the passengers, and within a week I felt able to pick up passengers on my own. Later I learned about driving the hearse and taking on the responsibility.

Related School Subjects

Anyone could guess that my favorite school subject was auto mechanics, but I wish now that I had learned more basic arithmetic. I have to keep records of the gasoline mileage that the cars get, add up expenses, compare the best prices for parts and services, and do other figuring. English classes helped me too. I've had to interpret city maps, read service manuals, and understand written messages my boss or other people leave for me.

Personal Characteristics

When I was living at home and going to high school, my sister often complained, "Your head is always under the hood of a car."

I bought a 1939 Cadillac when I was 15 years old. It didn't cost much, and it didn't look like much either. I put maroon velvet upholstery in it, carpeted it, replaced all the broken fittings, and gave it 3 coats of shiny Malibu blue paint.

The transmission was in good shape but I had to overhaul the engine, replace the carburator and ignition, tune it, and clean all the parts. It took six months to get that car in the shape I wanted it, but it was a showpiece when I finished. I'll always remember the day Zenobia Petett went for a ride with me in my car. It's funny how I could never get her to notice me before I brought my Cadillac to school that day.

I'm a quiet person, and I would rather tinker with machines or be by myself doing something than to be around a lot of people. I like to feel that my boss depends on me to carry out his instructions. There is very little stress in my career because the duties are predictable and stable. I worked in an electronics assembly plant and a hardware store before I come here to Sound Harbor. I soon learned that the noise, pressures and customer relations of some businesses were not the kind of environment that suited me.

Transferability of Career Skills

Our town is fairly small, and not many people have chauffeurs here. If I ever had to move or look for another job, I'm sure I could be a personal chauffeur. It would be different from this job in that I would probably be on twenty-four hour call. Also I could transfer what I have learned here to the career of bus-driving or taxi-driving. Learning to follow Mr. Torres' directions has taught me to provide personal services such as those a butler, caretaker, or valet offers.

Luxury airlines take me to many distant cities. Photo courtesy of American Airlines.

International Sales Representative

I am taking off in a jet airplane, a 747. I look out the window and down at my home city below me. I see buildings and streets that I know, but they all look different from the air. My plane keeps climbing. I know that we will soon be leaving my home, the United States. We are heading for Latin America.

On my last trip south, I had two interesting meetings. One was with the President of Panama. The other was with the President of Venezuela. This trip, I plan to visit the larger cities of several Latin American countries. I plan to have talks with other important officials of the governments of these countries. I also will be talking with men who are the leaders of businesses in these Latin American countries.

I know that the way I present myself to them is very important. They will think of the people of my country, the

United States, as being like me. As a matter of pride for myself, I want people to like me. I want them to think well of my company, as well as of my country.

For five years, I have made regular trips to many parts of Latin America. My job is that of international sales representative for Best Products Company. The company assigns me to go all over the world to help the sales of our products. This year, I hope to travel to Europe and the Far East.

When I was a young boy growing up on a farm, my brothers and I used to see jets flying high in the sky. We used to guess where they were going. I never dreamed that I would travel around the world, meet important people, and see exciting places. My parents would tell my brothers and me that being a good student pays off. They were right.

We have all heard that trade among the nations is very important. The more a nation trades with others, the better its economy will be. The same is true of each firm that makes or sells a product. The more it sells, the stronger the firm will be. Companies start with sales in their own country. Later, they begin to look at selling in other lands. This is where international sales representatives like me play a vital role. I have to know commerce, banking, financing, marketing and exporting methods. Thus, I can work well with foreign customers. I can then sell my company's products to them. Of course, knowing the language of the countries I visit is very useful. The Spanish I grew up speaking as a boy has come in very handy.

Working Conditions

My office is at the Best Products Company's headquarters. It is modern and in very pleasant surroundings. I keep files with up-to-date information on the many countries and customers I deal with. My work demands that I keep up with the political and economic affairs of all countries that buy our products.

When I am not traveling, I spend my time in the office reading sales contracts and taking care of the necessary paper work. This means making sure my customers in other countries get the products they have ordered from my company. Sometimes customers will visit our plant to see how our product is produced. While they are visiting, I will treat them to dinner at a fancy restaurant, or in some cases I may take them to my home for dinner. At times, a visitor will want to go shopping for things not sold in his or her own country. I will take him or her to the stores to find these items. In short, it is part of my job to see that my foreign visitor is treated well.

While the demands of my job are great, so are the rewards. I have the chance to meet a lot of well-known and interesting people. I get to know their way of life in their own countries.

My company provides the usual benefits: sick leave, paid vacation, insurance and retirement benefits. On my business trips, all expenses are paid. Also, if I want to return to school to take a course which will help on my job, the company will pay the cost.

Qualifications

A high school diploma and a college degree are a must for a job like mine. A Master's degree in international business can be very useful. It helps to know another language. Some firms want an employee to have experience in traveling. It helps for one to know other countries, the people, their customs, and their needs in terms of products.

Each country has its own special needs and problems, so it is very important to study the needs of each country. My geography course in junior high school has come in handy. Now I can also understand why my English teacher wanted us to develop good reading habits and know how to use the library. To help me in my studies, my firm subscribes to several international magazines and newspapers which have a lot of information on other countries.

Related School Subjects

I have already told of the need to learn foreign languages. I grew up speaking both Spanish and English. Later in college I studied French for a year. It always helps in dealing with people if one can speak their language. In addition to learning languages, taking history and sociology is very helpful. A good background in geography is, of course, necessary. My courses in speech and public speaking have made me feel sure of myself in talking to people. A good background in math is very useful. I must also understand the metric system.

Personal Characteristics

Because I deal with many different people from many different countries, I must get along well with all kinds of persons. I need a good sense of humor and a lot of patience. I must accept the fact that people in other countries do things differently than you and I do here in the United States. Therefore, I have to learn to adjust since each situation needs a different approach. Finally, I have to be well-dressed and very neat so that I can make a good impression on people.

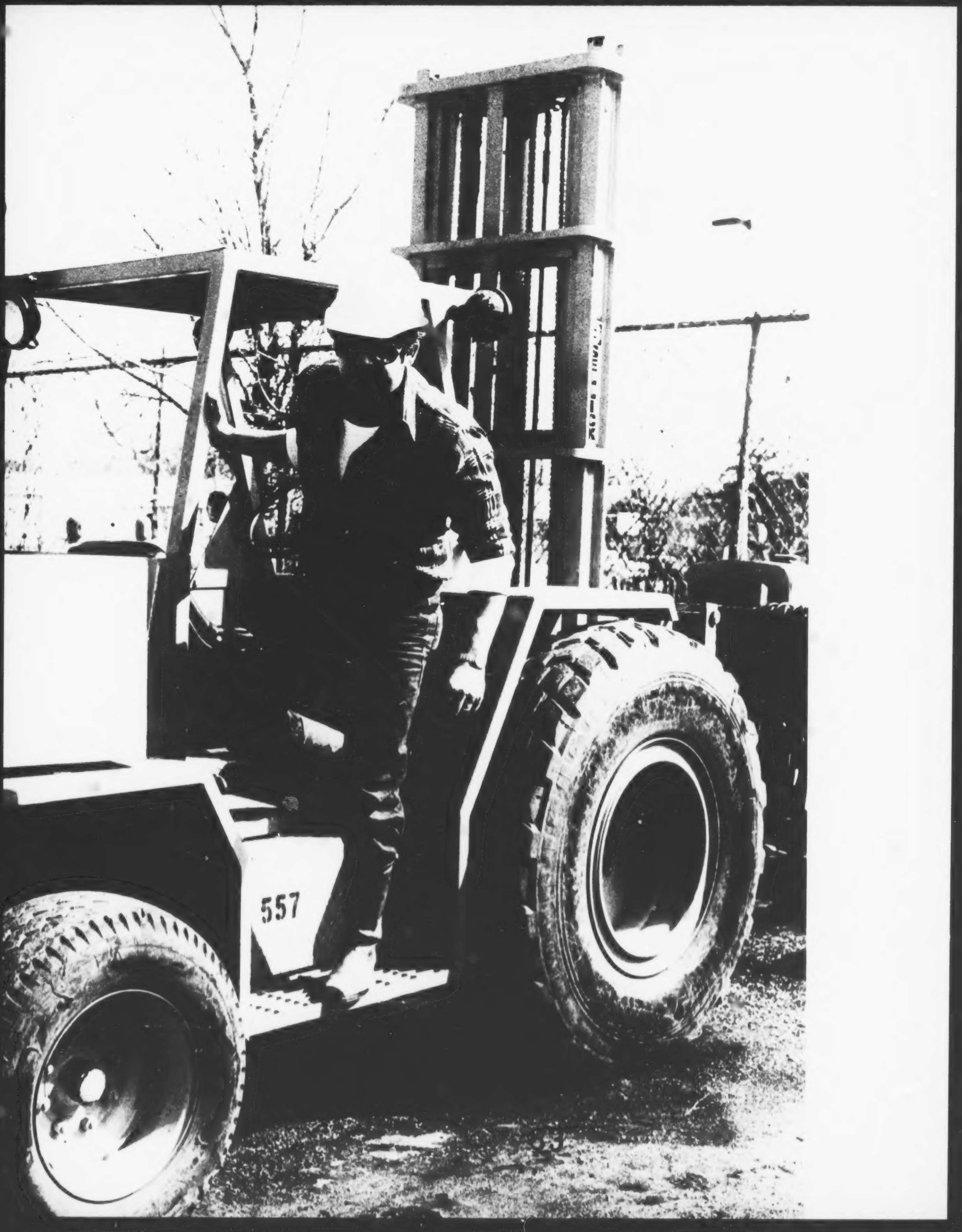
When I am on a trip, I know I will work long hours. At times I have to work late into the night and on week-ends.

Advancement

My next step up will be to that of international sales manager with over-all sales responsibilities for all countries. This position is now held by my boss. The next step after international sales manager is usually to that of vice-president of international marketing. This position, however, requires many years of experience.

Transferability

With my background and skills, I could easily teach a marketing course in a high school or college. I could also work for the federal government. I could also start my own import business.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I drive a forklift truck and move cargo in and out of the warehouse.

Longshoreman

Looking out the window from the warehouse on Pier 39, I see a cargo ship leaving. This morning that ship arrived from Japan with a cargo of automobiles and large crates of televisions. Many workers are needed to load or unload ships. There are many tasks and responsibilities for a longshoreman. I drive a forklift truck and move cargo in and out of the warehouse. The truck I operate has clamp lifts to move cartons, and a tow bar to pull warehouse trailers.

Every day before leaving the warehouse I check with the longshoreman dispatcher. In the mornings large companies call and tell him how many longshoremen are needed for a particular dock or pier job. There are three work shifts, so it is up to the individual longshoreman to sign in ahead of time. The dispatcher looks at the list and then gives me an assignment for the day including the name of the ship and the number of the pier. This information is important because each cargo requires different handling. It takes certain skills and knowledge to be able to store and stock the materials in the warehouse properly. Sometimes stacking needs to be done by hand. I do that, too. Avoiding damage to the cargo is also one of my concerns.

Keeping records of the cargo is not one of my jobs. Another longshoreman is the checker. The cargo changes from day to day since ships arrive from different parts of the world. The cargo each country imports or exports is not the same; therefore, the storing and stacking of each load requires different amounts of space and different arrangements. In transporting cargo in or out of the warehouse I have to be alert and quick in making decisions relating to the size of the space for the cargo. Another primary responsibility is the simple maintenance of the machinery assigned to me. Oiling parts and checking the water in batteries does not take much time. A friend of mine, a longshoreman mechanic, repairs the machinery and makes any further adjustments. His work keeps him busy maintaining and repairing all the trucks we use.

Working Conditions

One work day is never the same as another. Each day is filled with various activities on the ships, docks, and warehouses. This is what keeps me so interested in my job. For example, one day we may unload electronic equipment and the next day a cargo of bananas. Each longshoreman performs different duties during the unloading. We all depend on each other to do a good job and complete the work on time. My cousin Joe, a holdman, works below deck. His work also varies, depending on the type of cargo. Yesterday he loaded the bananas on moving conveyor belts. Today, other means of unloading were used for the foreign cars. This time he secured cables and hooks into the wooden platforms which carry the automobiles. Then they were carefully lowered onto the deck. The dock man, Pete, stands on deck. When the conveyor belt is used, he makes sure it runs smoothly. When heavy cargo is lowered, he guides it and keeps a sharp eye out during this operation. If the cars are not to be dented or scratched, they must not swing out too far.

Working near the waterfront gives me a feeling of freedom. I like the sea, and I like to do new things everyday. Since I plan to enroll in vocational school, I will need to work only part-time. Longshoremen can do that. The three work shifts help because I can work any time that fits into a school schedule. They also allow time for studying.

Qualifications

This job as a forklift truck driver has few requirements. I had to learn to operate a power truck. Some companies have formal training programs which last a few days. It also takes a few weeks to learn the layout of the waterfront and how to handle materials. At the beginning when I applied for this job, my only experience was driving a truck in town.

Personal Characteristics

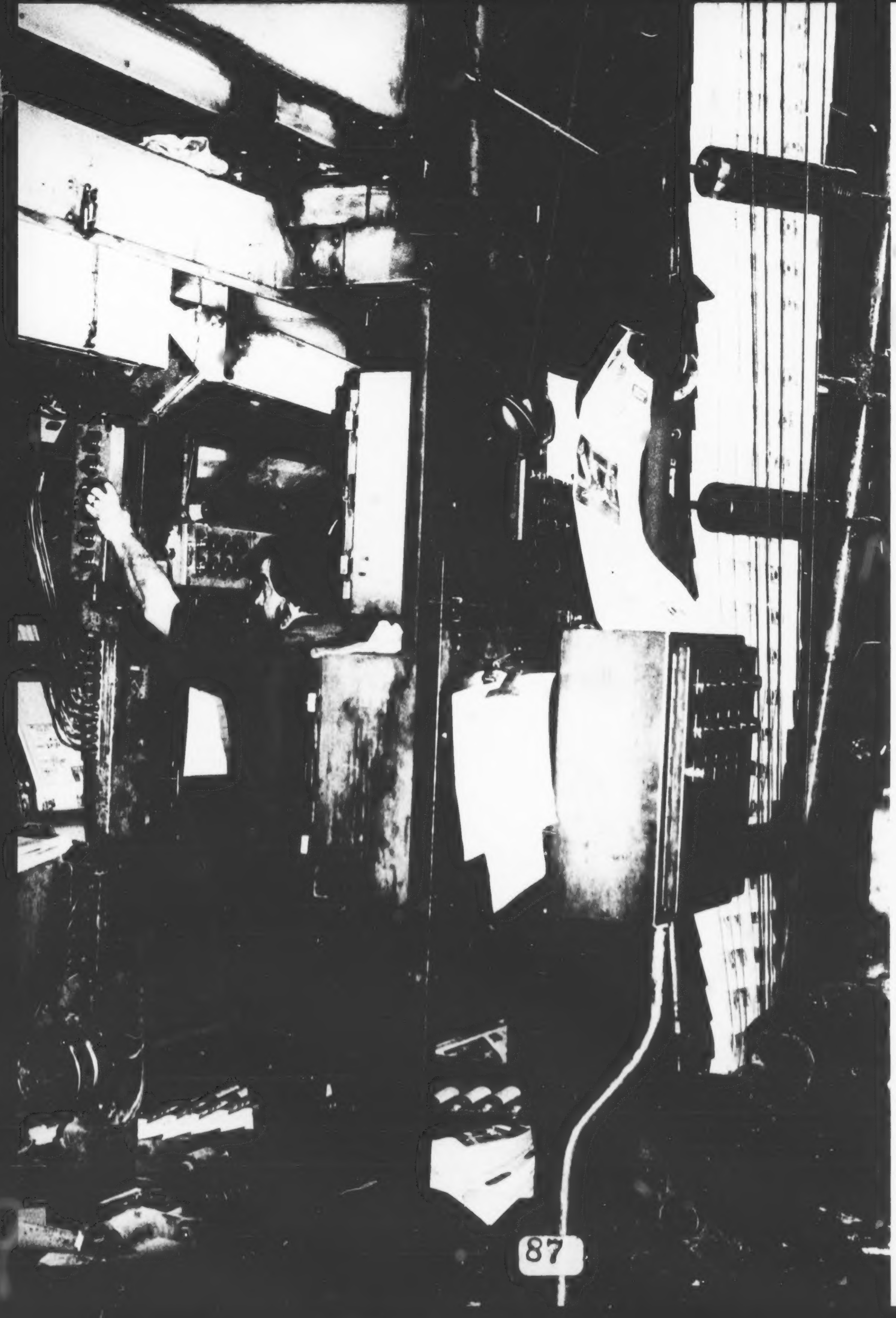
This job requires physical strength and stamina. I am used to the physical demands because I played soccer often while I was growing up. I still keep in shape by participating in sports. I have to be punctual and responsible and get along with the other workers. Since this job requires close cooperation, we do try to make the loading and unloading go smoothly.

Advancement

Although there are not a great many opportunities for advancement, there are some, such as becoming a foreman or supervisor of a warehouse. A dock foreman oversees the work of the longshoremen.

Transferability

Power truck drivers like me are employed in many different industries in all parts of the world. Loading and unloading jobs are found in large cities where factories are located. Some of my friends have found jobs like mine in warehouses, depots, or freight stations. In some places the materials that are handled may not vary so much; for example, some may be only building materials. In other places, the work may be more varied.



Our press operators must stay alert to monitor the machinery that prints the paper.

Managing Editor

Linda was upset when she came into my office. I could tell because she gets excited when something is wrong.

"Good morning, Linda. Nice weather we're having, isn't it?"

"Chief, this is no time for polite conversation. Everything is going wrong. The big feature on Orange River isn't ready yet, and I don't know what to do!"

Linda is our environment and ecology editor. Although she is young and sometimes gets excited under the pressure, she is a very good worker, and I know that if something has gone wrong, there is probably a good reason why. So instead of getting angry and asking her all sorts of questions, I immediately try to find out what we can do. Is there enough to print half of the story now and the rest on the following Sunday, or shall we do the whole story then? Neither is a very pleasant prospect, but I have to make the best of it.

"Can we print half of it now?" I ask.

"Could we wait, chief? We could do a much better job if we had all the pieces ready."

"O.K. Tell Hal that if he doesn't have enough ads to fill in the spaces set aside for the story, we can use the feature on paramedics now instead of Sunday. But I need the Orange River story by tomorrow, because I don't want 'The Times' to beat us to it."

Hal is our news editor. He's in charge of planning the actual layout of the newspaper. He decides where most of the stories will go, and where the advertisements will fit, but if he has a big question like how much importance to give to a special news story, he'll ask me and make sure we agree on where the story will go. Hal works closely with the advertising staff to know how much advertising, as well as news, needs to go into the paper.

I'm the managing editor of our newspaper, the "Daily Sun," and my name is Robert Fuentes. I suppose you could say I'm the "chief honcho" here at the offices, but I still work for the owner, Cedrick Hampton. Our paper generally follows his policies, so it is fortunate that he and I agree on the really important issues. I believe that he must trust me, because, unlike many owners, he gives me a lot of leeway in how I run the paper. I am also fortunate that he's as concerned as I am that we give a fair shake to those opinions that don't agree with mine or his.

Ed Green, our metropolitan editor, is in charge of collecting and handling the local news. He assigns the reporters to different stories and decides how they should be presented. Since Linda's Orange River Project was a special feature and covered a wide area, she reported to me and not to Ed.

Just five minutes ago Ed called me with a later story about a kidnapping that had just occurred. He wanted to know how much attention we should give the story, and we decided not to sensationalize it by putting it on the front page. It was a difficult decision, because although it's the type of thing that can help sell more newspapers, the policy at the "Daily" has been to try and give more importance tothe larger issues than to some of the more dramatic personal ones. Although the owner helped set the policy, there are other stockholders, and they are critical of the policy. They feel we should give the greatest priority to profit. So we often have to make some pretty tough decisions in order to strike some sort of balance.

As managing editor, I am responsible for all the different things that go into publishing a newspaper. In a large one like ours, there is no way that I could run all of these things myself. That is why there are other editors, each one in charge of a section, and of course, managers for the actual printing operations and maintenance.

These other editors, like Linda, assign the stories to writers and reporters in their department and correct them for printing. An editor also has to decide what news to print, and how much importance to give each item. Not only that, but each story has to be made attractive and interesting for the reader.

As managing editor, I hire and fire personnel. I also coordinate the activities of the different editors and approve the final layout of the paper. Since we receive news not only from our reporters and feature writers but also from wire services such as Associated and United Press, and also from national columns, I'm pretty busy! Sometimes I even write a few of the articles myself, and some of the headlines.

In a large paper such as ours, there is also a make-up editor. No, his job isn't to make up stories. He works out the final arrangement, or 'makeup,' of the paper. The feature editor is in charge of the entertainment sections, crossword puzzles, book reviews, and other features. Other editors specialize, and for that they must be pretty knowledgeable in business and finance, food, fashion, sports, and other departments. In fact, only a while ago we hired a science editor to help keep our readers up to date on the latest inventions and discoveries in science and industry.

Working Conditions

Newspaper offices are pretty busy places, even though most of them are comfortable and pleasant; however, there is a lot of pressure and sometimes it gets pretty frantic. Because of that, you learn to take occasional short tempers in stride, and keep on doing your best to turn things out right. Having a sense of humor and being willing to listen and sometimes change your ideas is essential.

Most newspapers are published daily, so an editor often works on weekends. For a morning paper like ours, working hours are usually in the evening from 4:00 p.m. to midnight. That makes it tough on your family life, and I don't get to see my son and daughter nearly as much as I would like. Although much of the work is hard and involves meeting rigid deadlines, it never gets boring. I really like knowing what is occurring throughout the city, and I have had the opportunity to meet many of the people who actually make the news in our town.

Qualifications

There are some editors who have not finished college, but journalism is such a competitive field that a college education is almost essential to start as a reporter. Although a good number of people starting out in the newspaper business have majored in journalism, many employers prefer liberal arts graduates with courses in a wide variety of subjects. There are no examinations upon applying for a job, but one must show samples of previous work. Also good recommendations from previous employers help.

Related School Subjects

I have always been interested in world and local events, and I considered studying history or political science.

The courses I took in both of these subjects have really helped me understand world events and politics. A friend of mine in college, who was very interested in science, but also liked to express himself, found a job as a science editor for a magazine. There are a number of opportunities for specialized writers in magazines and newspapers.

It was very important for me to do well in my English classes in school, especially in composition and sentence structure. Mrs. Gant was my senior English teacher and was very strict about our writing. We were required to turn in 3 compositions a week, and her attention and encouragement helped me to decide on my career. She also taught an elective course in World Literature which I thoroughly enjoyed. We studied mythology, ancient literature, poetry and the majority of history's famous writers. I particularly enjoyed the Russian writer, Dostoevsky. He wrote about the poor and common people, which seems a great deal like reporting.

In actuality, all of my courses in high school were important to my position now. I have edited articles on all subjects and the knowledge of history as well as chemistry that I have learned have aided me in my editing. One of our rookie reporters wrote an article about the Gold Rush in California, mentioning Sutter's mill. He had said that it was where gold was first discovered in 1858. Something about that statement didn't seem accurate and when I checked I remembered that it was the gold Rush of 1849 and that the first gold was discovered in 1848, not 1858. A mistake like that would have made the paper look foolish. My 11th grade American History teacher, Mr. Moore, would have been proud of me!

Personal Characteristics

Yesterday, Tom Adkins, one of our best young reporters, had a talk with Ed Green, the metropolitan editor, and me. Tom is enthusiastic and full of energy, and very dedicated. I could see when he first came to us that he might be a good reporter, and here he is now, in the same spot I used to be in, probably thinking his bosses didn't have any courage at all!

"Chief," he said, "we haven't been giving very much attention to the stories I've been writing on the corruption in our city. I thought our paper was dedicated to finding the truth and printing it." I had to choose my reply carefully.

"Well Tom, I've got to look at the larger picture. There are parts of your stories we can't print because we don't have enough proof yet, and some parts haven't been printed because they could hurt some innocent people more than the guilty ones themselves. We have to be sure of our ground even more than usual when we are dealing with this type of issue."

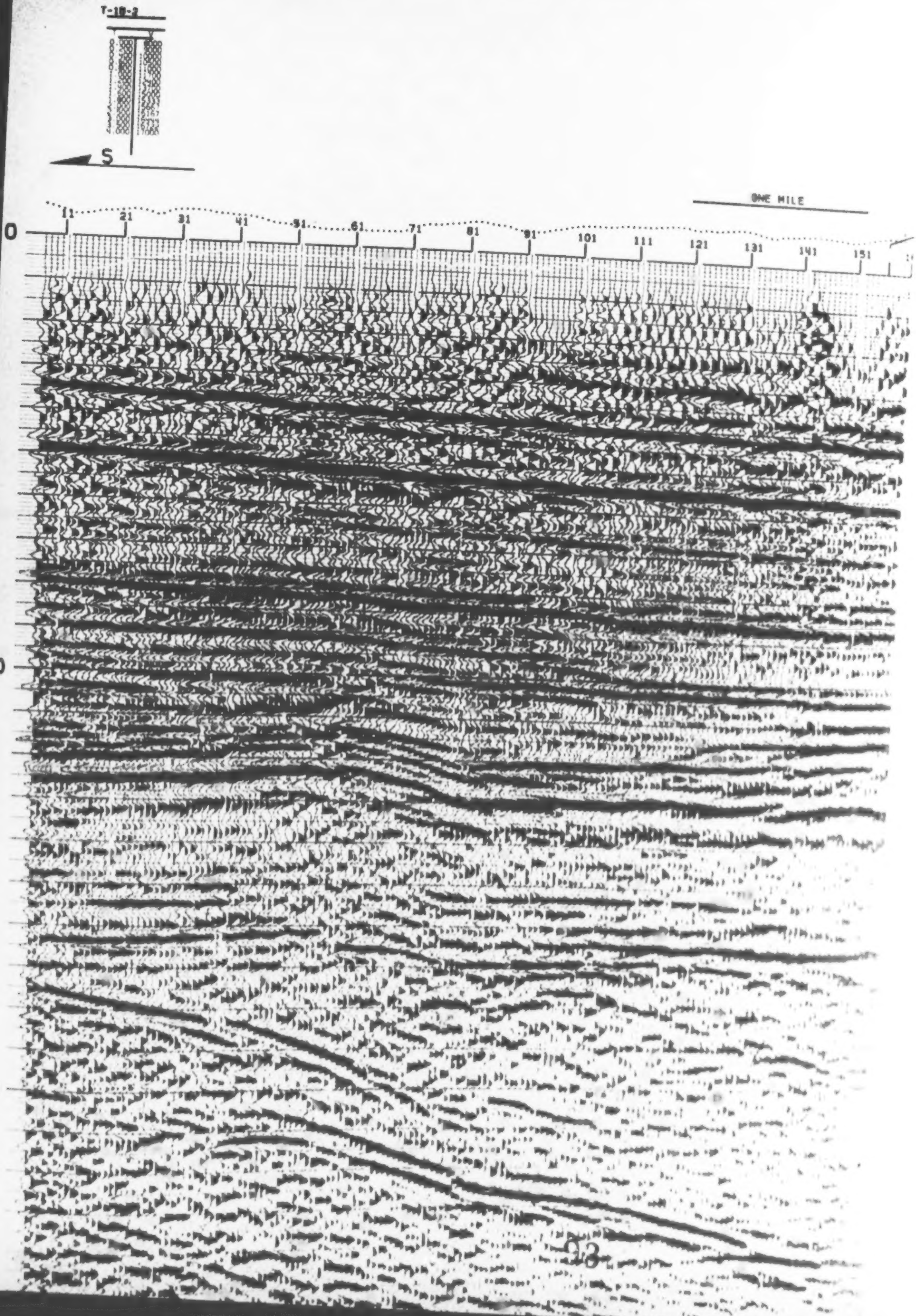
Tom didn't seem very satisfied when he left, but I hoped that he respected me enough to know that I have good reasons for my decisions, even if I sometimes make the wrong ones.

Advancement and Transferability

The pay of editors varies with the size of the newspaper and the circulation. The large newspapers may have these steps: editorial assistant, assistant editor, associate editor, senior editor and managing editor. Being an editor is a great job, and in my opinion, worth the effort it takes to climb the ladder.

Sometimes I dream of owning my own small newspaper. I'd probably perform many of the functions myself, such as selling advertisements, collecting the news, arranging for distribution, planning the format, and of course, writing a lot of the stories and editorials myself. At other times I think it might be fun to be a free lance writer without the phone ringing all the time and people running around in such a hurry, but I guess I'd probably miss the excitement.

Some editors may go to work for large business firms as directors of public relations who write newsletters and publications for the company. Other editors may work for publishers of educational materials.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This seismograph reading assists me in studying the layers of the earth under water.

Marine Geophysicist Geologist

My SCUBA (Self Contained Underwater Breathing Apparatus) gear doesn't feel heavy while I am underwater. The fish are beautiful, and I wonder why I had not noticed them all week. Then I realize why. All week I have been working, but today I am diving for fun. I am a marine geophysicist specializing in marine geology. I am chief of a group which has come to this remote cove to study the aftereffects of a recent earthquake. Our instruments 2,000 miles away detected the earthquake. I have particular interest in the area for two reasons. First, one of my friends in our station predicted this earthquake. He, too, is a marine geophysicist, but he is a specialist in seismology, the study of earthquakes. I also have a particular interest in this part of the ocean floor. Many years ago when I had just graduated from college, I got a job as a member of a party of marine geologists who were studying this area. They were here because of some unusually strong magnetic forces that were measured on this part of the ocean floor. Magnetic forces are always of interest to geologists because they indicate an unusual formation under the top layers of rock. This study has gone on for many years, and I am now head of this party. When a group stays this long, we call it a "party." When the group stays a short while, it is called an "expedition."

As a marine geologist, my interest is in the land formations under the sea. My work is different from that of a land geologist only in that I am interested in those areas of the earth that are covered by water. The studies are the same, but the preparation and equipment used are specialized. I have become a diver, but diving is only a small part of my work. We use soundings from ships and planes and even satellite pictures which indicate differences in water temperature. These differences can be significant in determining what type of rock formations are under certain bodies of water.

As a geophysicist, I study more than the sea. In fact the sea, land, stars and planets are all interrelated in their effects on life on earth. The most dramatic effect we see is the action of the sun and the moon on tides, but there are many other effects that are just as dramatic to a trained observer who uses sensitive instruments. These forces interact with each other and may affect the weather, causing rainfall and even such catastrophies as tornadoes and hurricanes. Ocean currents have been known to us for a long time, but variations in these currents can have serious effects on us, particularly when they cause weather changes. Benjamin Franklin has been credited with plotting the movement of the Gulf Stream and thus helped cut the sailing time across the Atlantic. Many discoveries we make lead to other discoveries, while some can be used directly by fishermen, sportsmen, airlines and shipping companies.

Working Conditions

Laboratory work is necessary to the fields of geophysics and geology. Some technicians may spend their entire careers in the laboratory or in the computer center generating and analyzing data. The professional geophysicist or geologist, however, always wants to be at the sites where the work is done. He may be there throughout all phases of the study as a crew member or as the chief of a party, or he may be there only occasionally as a supervisor or chief geologist with many parties working in different parts of the world. Some of these high level scientists often visit other sites not within their jurisdiction but within their scientific interest. Since studies of a scientific nature are interrelated, especially if they fall in a general category such as geophysics, many different kinds of scientists can be interested in any one project.

We often spend several weeks at a time on board a ship gathering data from soundings, gravity measurements, core samples from drilled holes, or any number of other sources. Other times, as is the case now, we establish a base camp on shore where we set up a tent camp that is at the same time primitive and very modern — primitive because we have none of the comforts of home, but modern because of the sophisticated scientific equipment. Most of us in the party are outdoorsmen and do not mind the primitive living conditions. The weather is fine here, but we have lived other places in very cold or very hot and rainy climates. A person who does not like these outdoor conditions can still be a marine geophysicist specializing in laboratory or data analysis, but his opportunities for advancement will be limited without the full range of experiences.

Qualifications

Work in the area of oceanography, of which marine geophysics and geology are specializations, requires much formal study. There are many levels of work in the field, however, and high school or junior college graduates can start at the technical or other subprofessional levels. In addition to preparing for the various sciences that land based projects would use, the marine specialists also have to learn about the sea, how to adjust to it and how it relates to the total land-air-space setting. A doctoral degree is required to head a research project or to teach at a university. A bachelor's or a master's degree will qualify a person for many positions that may lead to other positions with more responsibility and pay. Graduates of junior colleges with an associate of arts degree in a marine science usually start as specialized assistants in technician's positions with good opportunities for becoming professionals with further study and experience.

Important courses in high school include all the sciences and a good foundation in mathematics. Study of the sea and the various types of ships and marine equipment should be studied independently if these courses are not offered. Communications play an important part for work crews that operate away from home base, so knowledge of ham radios and astronomy are helpful. Working on board ship or living in a base camp for long periods of time puts us unusually close to others; therefore, it is important that we be able to get along with each other. On the other hand, enjoying lonely, detailed work such as operation of laboratory instruments, hours spent in observation, and report writing are assets. Neat handwriting is helpful in taking notes of observations that will later be used in written reports. Ability to swim and the strength to work under extreme conditions for long periods of time are also essential.

Advancement and Transferability

There is great opportunity for advancement if one continues to learn on the job. The need for workers in all kinds of oceanographic fields is increasing. Realistically, though, there is still not enough money to do all the work that needs to be done. The top jobs require a doctor's degree and the top pay is not as high as salaries for similar land-based jobs. Most scientists in this profession enjoy their work, and also like the ocean, so they do not consider salary a major factor in the choice of jobs.

Transferability is also an asset because of the diversified scientific preparation of these professionals. Their employers in land-based jobs would be more diversified and would very likely be private companies rather than government agencies. At this time the federal government and the universities, many of them through federal grants, are the largest employers of marine geophysicists. Oil companies, however, are turning their explorations to the sea. In time they will become large employers of marine scientists. If the use of ocean waves and currents is developed as a source of energy, it is likely that the opportunities for marine scientists, particularly geophysicists, will increase.

People who work at sea have always been known for their myths and superstitions. One would think that modern day scientists would not be so inclined, but some of the leading oceanographers have a saying which sounds a little superstitious: that the sea chooses us and not the other way around. Whether it is true or not, the advice to a person aspiring for a sea career might be to try the sea before he makes a final commitment. Summer jobs during college preparation or even before are recommended so that the aspiring oceanographer may know exactly what's ahead before specializing in a profession that he or she may not be happy with. Career information materials in a high school, college, or public library should be studied carefully when considering whether any career is best.

As a boatswain I am responsible for the inspection of safety equipment on the ship.

Merchant Marine

Today the crew and I are inspecting life rafts, life jackets, fire extinguishers and other safety equipment to see that they are in proper working order. This is only one of my many responsibilities as boatswain (pronounced "bosun") of the deck crew of this cargo ship, the S.S. Enterprise. Everyone calls me Lalo, but my full name is Eduardo Vega.

"What other things might a boatswain do during a regular working day?" you ask. Well, first let me give you an idea of the people who work on the ship. All the different duties and tasks aboard ship are divided up among three groups: the deck crew, the engine crew, and the steward crew.

As the boatswain, or chief seaman, my primary responsibility is to communicate the orders from the officers of the ship to the crew and to see that these orders are carried out properly. My job function is very similar to that of a foreman or supervisor. I mostly deal with people. My job is the top one for unlicensed crew members on deck.

The other members of the crew that work along with me are called the ordinary seamen, the able seamen, the carpenters, the utility men, clerk maintenance men and the purser.

My good friend and co-worker, José Darío Saldaña, is the chief engineer of the engine department. His basic responsibility is to attend to the operation and maintenance of the engine room. He and his crew must lubricate and repair all machinery. He supervises the deck-engine mechanic, electrician, fireman watertender, oiler, wiper, reefer engineer and junior engineer.

Another one of my associates is the chief steward. Mario Aguirre and his department are responsible for the crew's meals and quarters. When he works on a passenger ship he also prepares the food for the passengers and is responsible for cleaning up all the recreation areas and all the officers and passengers' cabins. Mario can usually be found in the galley. The galley is the name used for the kitchen. Here the chief cook and steward plan meals. The chief cook supervises the preparation of food, while the chief steward purchases the food. Of course, he gets assistance from the utilitymen and messmen that work with him. The utilitymen carry food supplies, wash dishes and work in the kitchen, while the messmen serve meals and take care of the living quarters and cabins. Mario is very well organized, and he is fair with his personnel.

Working Conditions

The crew relies very much on one another to run a tight ship, and "tight" is the word. I am referring to our quarters. We have comfortable but very compact sleeping quarters. The crew must really make the best of the available space on board. I think this was the hardest thing for me to get used to at first.

Working at sea has its hazards. The possibility of sinking or colliding with another ship is always a constant threat, even with modern navigation equipment in use. There is also the possibility of fire. Each member of the crew has to have proper evacuation training and practice drills to prevent a disaster in case of an emergency.

You must also know how to take orders and eventually, when you go up in rating, you need to know how to give them. When the captain wakes me at 3 a.m. and tells me to get the engine crew together, it is my responsibility to follow the orders immediately without question. Eventually I always learn the reasons behind the officers orders, but in times of emergency, like the night we narrowly missed a collision with the Lybian tanker, it is my duty to act quickly without wasting precious minutes finding out the specific reasons. I would expect anyone under my command to react in exactly the same way.

I feel one of the primary characteristics of a merchant marine is to have a love for the sea. I remember the first time I read Ernest Hemingway's The Old Man and the Sea. I was fascinated by the mystery of the ocean and longed to be involved in some way with it. After high school I joined the Navy because I had no idea of a career choice and this branch of the service allowed me to get close to the ocean. The old limerick was true in my case; "I joined the Navy to see the world and what did I see? I saw the sea!" And all that I saw, I loved. The Merchant Marines was then the logical step after my discharge.

I am a person who really enjoys the outdoors. This is an advantage since my job requires me to work under all kinds of weather conditions at sea. Rough water, storms, rain, heat and all kinds of other climatic changes are good examples of what I am talking about. There are also beautiful days, though, when the sea is calm and the temperature is very pleasant.

I am constantly busy aboard ship, and I work a seven-day week putting in quite a few hours of overtime. All the crew gets paid overtime when they work extra hours. Some seamen work a forty hour week — Monday through Friday, but most seamen are required to stand watch. Standing watch is done in two shifts of four hours each. There is an eight hour rest period between shifts. Most seamen assigned to watch duty have a seven-day work week. The only relief from this schedule is when the ship docks at a port, then most of the men enjoy a regular forty hour work week and, best of all, they have shore leave.

I always look forward to some vacation time, which is usually 90 days or more. Most of this time I spend at home in Galveston with my wife, Estella, and our three children Pedro, Gonzalo and Ana María.

The life of a seaman offers some rewards, although one never gets rich. I receive health benefits for myself and my family. My salary is based on fair wages negotiated by our union. I have paid vacations and a retirement plan at full salary which comes into effect after twenty years of service.

The primary reward that I receive is that I get to work doing exactly what I enjoy doing — working outdoors.

Qualifications

Having served in the Navy for four years helped me to get the basic experience necessary to join the merchant marines. When I applied, there was no experience necessary. All that was needed was a health certificate and certification by the U.S. Coast Guard. After this, I presented myself at a hiring hall run by merchant marine unions and the U.S. Navy's Military Sealift Command. I remember that for my first assignment, I had to go to the hall for two days in a row. Being present was absolutely necessary in order to get an assignment. That particular day the Olivares Shipping Company was looking for crew members. Although I was one of the last hired, I considered myself lucky. You see, there is a rule that the seaman who has been out of work the longest has first choice. There are times when economic conditions are not very good, in which case it may take up to two or more weeks to get a "berth." (That's what we sailors call an assignment.)

Entry requirements will, with time, become more difficult. In the future, there will be a need for a more highly trained crew of specialists and engineers to operate atomic or solar powered ships. Currently, there are five state merchant marine academies in California, Maine, Massachusetts, Texas and New York. There is also the U.S. Merchant Marine Academy which is located at Kings Point, New York.

Related School Subjects

If I were planning on a career at sea, it would be worth while to study all the math subjects offered in high school and attend technical schools like the ones in New York City. For example, I would study at the Pisces Oceanographic Lab, Maine Maintenance and Marine Electronics, at Beach Channel High School or Brooklyn Technical High School.

Personal Characteristics

One of the characteristics that is necessary for this type of work is a pleasant, easy going personality. You must be able to work with a group and cooperate with others to accomplish a given task.

You must also know how to take orders, and eventually when you go up in rating, you need to know how to give orders. I feel that one of the primary characteristics of a merchant marine is to have a love for the sea.

Advancement

Because many of the functions on board are mechanized nowadays, the employment outlook doesn't look too promising. Another contributing factor is that the marine fleet is not expected to increase. However, there will always be some openings due to retirement, death, technological advancement and mobility.

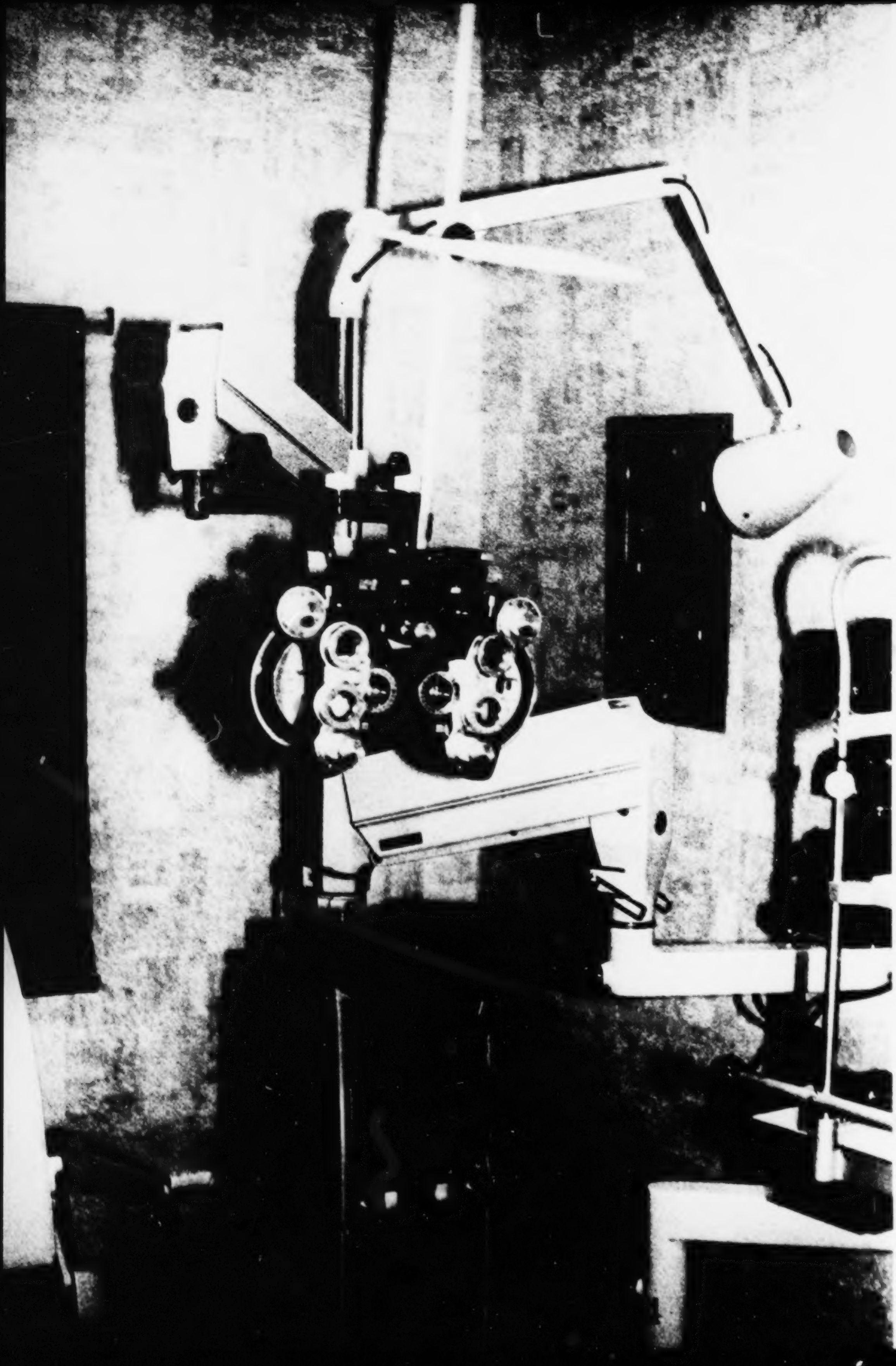
Transferability

Just last year, three of my co-workers changed jobs to related occupations. Skip, one of the smartest seamen I know, is now working for an oceanographic team in the Carribean. His family was thrilled with his change because they were able to find a lovely home in Puerto Rico and he spends much less time away from them. In fact, he is basically on an 8 to 5 workday. Only occasionally is he asked to work on the weekends or evenings.

Joseph is now in San Francisco working as a longshoreman. On our last voyage he just decided that he didn't want to be too landlocked. He can still be near the water by working on the docks.

Ralph was tired of taking orders all the time, so when he saved up enough money he moved back to his hometown of Lewisville, Texas and opened up a marina and boat sales shop on nearby Lake Dallas. He wrote to me last week to tell me of his progress and says that all is going well. He even found the girl of his dreams and plans to be married next month.

When I retire I will be in my early forties. I will return to my family in Galveston and open up either a charter fishing operation, taking fishermen and tourists out to sea, or a sea marina. My sons Pedro and Gonzalo will be grown men and we can work together in some type of business. I would enjoy working with my daughter, also. She is easy to get along with, but she has already decided that she wants to become a doctor. It really doesn't matter exactly the kind of business I work in, as long as I am able to be outdoors near the sea that I love so much.



My Phoroptor is used to test patients' vision.

Optometrist

"Look at the chart, Madam, and read the bottom line."

"Z . . A . . B . . D . .E . . F . . N . . P"

"Well, Mrs. Johnson, you have a small problem. I'm afraid you need glasses."

"Are you sure?"

"Yes. Tell me, do you have frequent headaches?"

"Yes, but that's just a sinus headache."

"No, Mrs. Johnson, it isn't. It's one of the symptoms you get from straining your eyes."

For ten years I have been an optometrist, and I enjoy every minute of it. As an optometrist I examine the eyes of my patients by giving them a series of tests. I look for problems a patient may have had in the past that could be related to eye trouble, such as headaches and blurred vision. If I come across an abnormal condition in the patient, I usually prescribe a visual aid such as glasses, contact lenses, or other treatment.

My day begins as soon as a patient enters my office. The patient may be someone I know or someone who has perhaps been recommended to me. More than likely, my patient needs to be fitted with glasses.

"Okay, Mr. Garza, let's try this chart. Yes sir, you are doing fine. Maybe just a few adjustments."

I then examine each eye with my special instruments to determine eye strain, possible diseases or damage to the eye. Next, special instruments are employed to determine the exact lens necessary for each eye. Usually the patient has the option of wearing glasses or contact lenses. Contact lenses are becoming very popular. If the patient needs medical treatment such as surgery or prescription drugs, I refer him to an opthalmologist, a doctor who specializes in eye care.

Working conditions

As an optometrist I have excellent working conditions. My office is relatively small and located in a shopping center. The general atmosphere is relaxed and neighborly. My work is always indoors and requires no special physical effort outside of being in good health, although manual dexterity is important. Just as in any personal service, one must display an appearance of confidence and sincerity toward the customer or client. The work must be precise in order not to cause more discomfort to the patient.

I am not subject to mandatory retirement. Generally, I am the boss of my own office. I am free to set my own office hours and arrange my vacations and free time to suit myself and my family. My work is peaceful and quiet since there are rarely any emergencies, so I feel more fortunate than many other professionals. I am really happy in my job.

Qualifications

The requirements for becoming an optometrist are quite rigid. The minimum requirement for becoming an optometrist is six years of college. Generally, the first two years of college are comprised of course work in mathematics, physics, biology and chemistry as well as the other general education subjects studied by students in colleges of liberal arts and sciences. The larger portion of the training program is four years in a college of optometry. Many hours are devoted to laboratory and clinical work in the school clinic. Most graduates receive the doctor of optometry degree (O.D.) upon completion of the six year program. In addition, each state requires an individual to have a state license to practice optometry. An individual must be a graduate of an accredited school and college of optometry in order to take the examination required to obtain such a license.

Related School Subjects

As a child, I had schoolmates who wore glasses. Even my best friend wore glasses. When I got to high school my friends who had switched to wearing contact lenses felt that these lenses were more comfortable and attractive. Sometimes when they lost their contact lenses, their parents howled about the cost of replacing them. Well, it was at that time I decided to think about being an optometrist. I took many courses which contributed to my major in math and science. In the afternoons after school, I would go to my local optometrist and ask him questions about what his work was like.

Personal Characteristics

Mom thinks that my success is due to my patience with people and my ability to get along with them. I do have a good sense of humor, but I take my work seriously. A good optometrist has to be personable and be able to speak clearly and concisely. The patients have to have confidence in me, so I must be able to diagnose and prescribe accurately. Since I am in private practice, I need some business skills.

Advancement

Many beginning optometrists serve as associates to established optometrists in order to gain experience. While gaining experience, they accumulate enough savings to establish a practice of their own. Some optometrists are able to establish their own practices from the very beginning. Others are able to buy established practices.

Beginning income remains more or less the same during the first few years of practice. Except for the very large chain establishments in the metropolitan areas, optometrists practicing in small towns and cities earn more than those in large cities.

There are also many job opportunities in government-supported health clinics for the needy. The armed services also employ a great number of optometrists, particularly young beginners.

The employment outlook for optometrists is very favorable. Women have excellent opportunities since in the 70's they comprised only 3% of the field. More eye strain, a desire for better medical service and more people earning more mean a greater need for good optometrists.

Transferability

With experience, an optometrist can move to any area of the country where better financial opportunities exist, open up a private practice or buy an established service. Some optometrists go into research or teach in colleges and universities. With their excellent science and anatomy background, they may go into related government services.

As a pediatric nurse I am on my feet almost the entire day.

Pediatric Nurse

The babies are now in with their mothers for an hour and I get a chance for a short break. Today has been particularly busy because of the large number of babies that have been born in the last two days. We only have three empty cribs. Several of the mothers will be leaving at check-out time this morning so we will have more cribs available. That's how our work seems to be: constantly changing. The newborns are here for only about two days and by then we have taught the first time mothers to feed and care for them at home. Even though they are all precious babies, we try not to get too attached because they leave so quickly.

Working Conditions

I have been a pediatric nurse for three years and I enjoy it every day that I am here. I am on my feet almost the entire eight hours feeding, changing, and giving medication to the newborns. Most days it is simply routine work, yet somedays it seems there is one emergency after another. Last week, for instance, we had triplets born and all were in need of constant monitoring and special care. We were quite busy. They went home yesterday in good health.

There are some duties of the nursing profession that are not exactly glamorous. Constantly changing diapers and cleaning up after the newborns is far from exciting. Some people that I know get weak-kneed when they see blood, but it has never bothered me as we are frequently taking blood samples from our patients, both mothers and babies. A person wishing to become a nurse also needs a large dose of patience. When people are not feeling well they tend to be irritable and sometimes even irrational so we must keep our tempers in check when we get yelled at or insulted.

We have other duties that are not exactly pleasant. We change the infant crib sheets, take the nursing babies to their mothers on a strict schedule, check medication at specific times and must be constantly alert for sudden changes in the babies breathing. Sometimes I wonder how we keep track of everything that is required of us!

The rewards of nursing, on the other hand, far outweigh the long hours and irritability of the patients. The majority of the new mothers are very grateful to us for our advice on how to care for their new child. Being able to cuddle a new life is an experience that is beyond words. I know now for certain that someday I would like to have my own children, to cuddle 24 hours a day, not just on my 8 hour shift. This is the floor of the hospital that seems to be the happiest and it is exciting to work here.

Personal Characteristics

I think it was in junior high school that I considered doing something in the medical field. My counselor encouraged me to take all the biology, chemistry and math that I could so that my college courses would be easier. Good study habits were important in both high school and college yet I still had time for a social life. I just kept remembering how much I wanted to be successful and to be respected, and so I worked hard at the really important things. The nursing profession provides me with a good living with respect and personal success. There is always a shortage of trained nurses and hospitals all over the world are competing for us. I have opportunities to move to other cities or other hospitals within the city.

Qualifications

Hospitals are special places that the public looks to for support and remedies, and in a sense they look to the nurses for the same thing. We must know how to get along with all types of people and how to deal with all kinds of emergencies. It is essential that we keep calm and know each procedure automatically. Any wasted time can cause more injury or even death. That is why we have such an extensive course of study including Biology, Math, Chemistry, six different courses of nursing science and a lot of psychology. It is four full years of hard work.

Advancement and Transferability

If I decide to stop working to devote my full time to raising a family, then I can return to my profession without any problem. An old wives' tale is 'learn to type and you can always get a job.' My version is 'learn to be a nurse and you can always get a well-paying satisfying job.'

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One of my fellow students from flight school now transports executives in this twin engine plane.

Pilot

You might say that I spend a lot of time up in the clouds. You see, I've been a pilot for Cósmica Airlines for the last sixteen years. My chief duties are to operate the plane and to supervise the flight crew. Often people ask me what I do on a typical flight. Here's an example of my last flight from Miami to San Francisco. My first task was to make a flight plan. As soon as I arrived at the airport, I talked to the meteorologist about the wind and weather conditions. This, together with computerized information, helped me decide which route to take and how high to fly. For the flight plan, I chose the safest and fastest route possible. Afterwards the air traffic controller approved it. Then I checked the instruments on the plane to be sure they were working. The flight engineer and the copilot helped with the check. The lives of a lot of people depend on whether the plane's equipment is working properly or not, so we don't take any chances. Sometimes the mechanics have to make emergency repairs just before a flight leaves. About a month ago, one of my flights was delayed while a flat tire was being fixed.

Well, back to the Miami to San Francisco flight we were talking about — Flight 62. After the air traffic controller gave me take-off instructions and clearance, we were on our way. During the flight, I talked to the passengers several times over the intercom. Imagine you were one of the passengers. Here's what you would have heard:

"Good afternoon, ladies and gentlemen. This is your pilot, Carlos Hernández. Welcome aboard Flight 62. We'll be cruising at 25,000 feet most of the way. We should have a very pleasant flight except for a little turbulence over Las Vegas — nothing serious. We'll arrive in San Francisco at six o'clock. I hope you brought your overcoats, because it's really cool there. The temperature at the airport is 40°." Later in the flight, I pointed out some of the places of interest that could be seen from the plane, like the Gulf of Mexico, New Orleans and Lake Tahoe.

Since I'm the captain, I'm in charge of the plane. I supervise the flight crew: the copilot, the flight engineer, the navigator, and the flight attendants. I am responsible for operating the controls of the plane, keeping the plane on course, and landing it safely. Of course, the copilot and the flight engineer help me.

During any flight, I keep radio contact with the ground stations, reporting the flight conditions and the position of our plane. The copilot shares with me the responsibility for the preflight check, radio contact with the ground, and the operation of the controls of the plane. He's second in command of the plane. I'm the captain, and he's called the first officer.

When we were near San Francisco, I radioed the control tower to get landing instructions and clearance. After we landed, I made a report on the flight. This included items like time in flight, altitude flown, and amount of fuel consumed. Then I went to the Outrigger Hotel to get a good meal and some rest. I was scheduled to fly back to Miami the next afternoon.

Not all my flights go as smoothly as Flight 62. Once in a while I have to fly by instruments because fog or rain makes it impossible to see. Sometimes I have to change the flight plan during the flight so that we can fly around a storm. As a pilot, I have to be mentally alert so that I can examine information, weigh different courses of action, and then make a quick decision.

Working Conditions

Most commercial pilots work for airline companies. However, some of them work in flight schools training student pilots. Others work for large corporations that use their own airplanes to fly the company executives on their business trips. One of my friends, Bill Martínez, flies the executives of his company all over the country and even to Europe. Some pilots work for business or agriculture, patrolling pipelines and communications systems or dusting crops. Test pilots work under hazardous conditions. They check the performance of new planes for the aeronautical industry. Most pilots work at airports near large cities. Since I work out of the Miami Airport, my wife and I bought a home near there a couple of years ago.

My working conditions are good. Since flights leave at all hours of the day and night, my work schedule is very irregular. However, because of FAA (Federal Aviation Administration) regulations, I cannot fly more than 85 hours a month, and usually I fly only about 65 or 70 hours a month. My job doesn't require a lot of physical effort, but it does involve a certain amount of mental stress, especially when flight conditions are poor.

I'm away from home a lot. I guess my wife and two sons will never really get used to that. I enjoy traveling, but I must admit the glamour wears off pretty quickly. Even flights from New York City to Buenos Aires can get to be routine after a while. I feel guilty sometimes because I'm not able to spend as much time with Roberto and Juanito as many dads do, but I try to make it up to them between flights. I spend as much time as possible at home, playing with them, driving them to their football games, and helping them with their homework. That gives my wife, Margarita, some extra time to complete other projects that she hasn't had time for.

My job has some attractive fringe benefits. My family and I can take plane trips at greatly reduced rates, and that's a big help at vacation time. We've traveled to Puerto Rico, Mexico, Hawaii, and Alaska. I also have good benefits such as sick leave, insurance, and a pension when I retire.

Qualifications

After I graduated from Crockett High School, I went to the University of Texas at Austin. My ambition was to be a pilot. Most airlines require two years of college for their pilots, and many prefer college graduates. I graduated from college with a degree in engineering. My dad pushed me a little; he always wanted me to have more education than he had.

I got my commercial pilot's license at the FAA Flight School in Oklahoma City. To get the license, I had to pass a written test, a flight test, and a physical examination. Of course, I had to have flying experience — at least 250 flying hours. I went on to get my instrument license, so I could qualify to fly in bad weather. Besides passing a written test and a flight test, I had to log at least 40 hours of flying by instruments. There are many FAA approved flight schools like the one I attended. The military also has good programs which train pilots.

Some of the pilots who finished flight school with me had to look around a long time for a job, but I was lucky. One of the senior pilots for

Solar Airlines gave me an excellent recommendation, and I was hired right away. Soon I had logged the 1500 flying hours necessary to get an airline transport license, which I needed in order to become a captain.

A few airlines require their new pilots to have 20/20 vision, but Cósmica hires pilots whose vision is correctable to 20/20. Most airlines have weight, height, and age qualifications which applicants must meet. Pilots must have good physical and mental health and they must be emotionally stable. They have to pass a physical examination every year.

Related School Subjects

In high school, I took as many courses as I could in mathematics and science. I also studied mechanical drawing. My college courses included mathematics, meteorology, electrical engineering, and mechanical engineering. Many of the things I learned in school have been very useful in my job.

Personal Characteristics

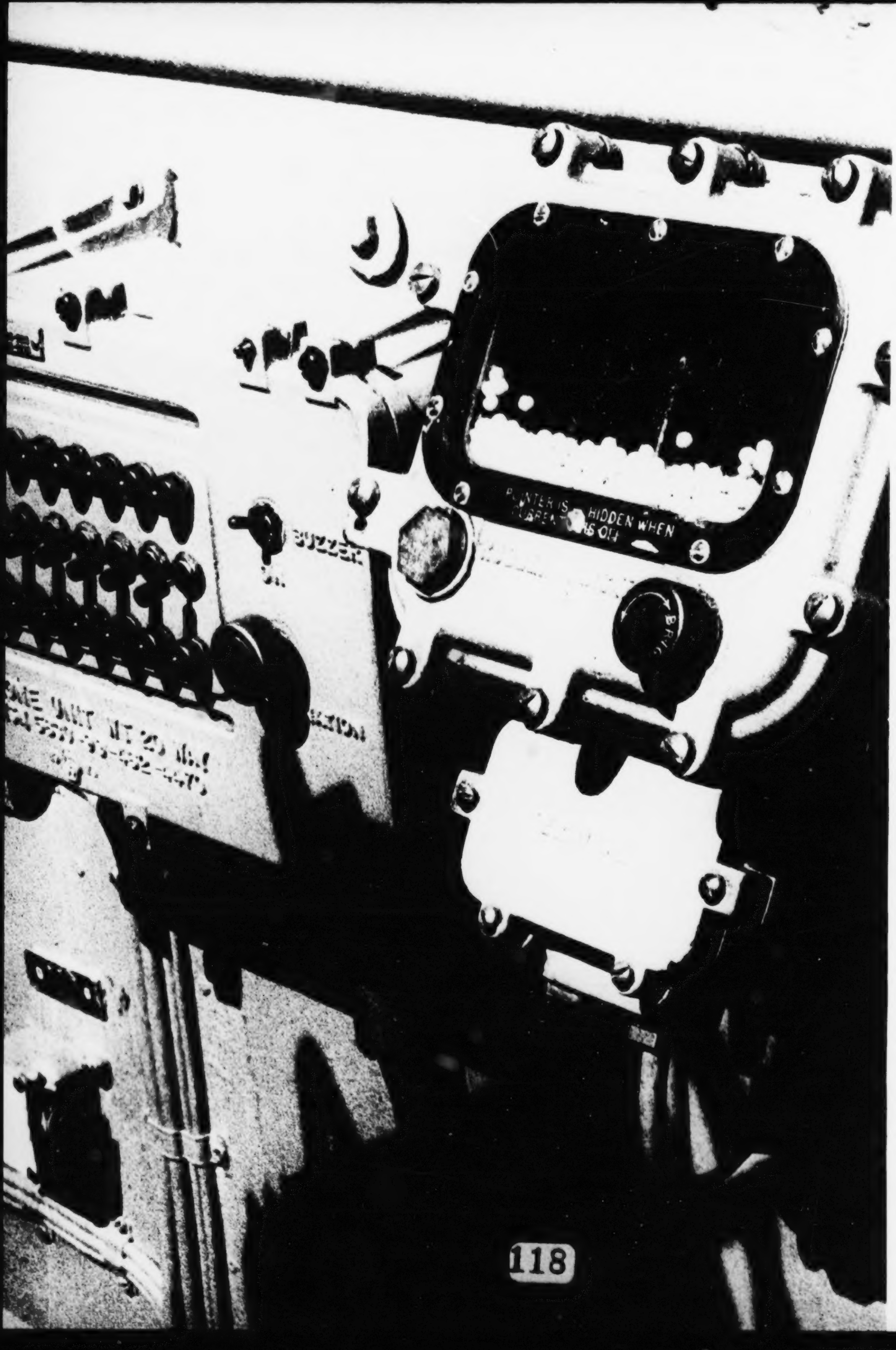
I've always enjoyed driving anything — motorcycles, cars, and now, airplanes. It's challenging for me to be in control of the plane and to transport people safely from one place to another. My coordination is good, and ever since I first learned to drive a car, I've been able to judge distances well. The reaction time I need in order to stop or to make a change on short notice is above average. I enjoy knowing how all the parts of a machine work together, and I get a lot of satisfaction from organizing any project. Maybe that's why I enjoy operating the plane and supervising the flight crew. I like the challenge of meeting situations in which I have to evaluate information such as weather conditions and fuel supply, and make a decision on a course of action. When necessary, I can work under a great deal of pressure and make decisions quickly. I like to travel and am willing to spend a lot of time away from home. My family has been understanding about this. My work schedule is very irregular, but I'm willing to put up with that in order to work at a job I enjoy. Since I'm away from home a lot, the time I do spend there is very special to me and my family.

Advancement

After working for five years as a flight engineer for Cosmica Airlines, I advanced to the position of copilot. Ten years later, I achieved my goal of becoming pilot and captain. As I gain experience as a pilot, I get a better choice of routes, work schedules, and my salary increases. I plan to keep my position as a pilot for a long time. Some pilots become chief pilots and are in charge of flight procedures, maintenance, and scheduling of aircraft. Others become flight instructors, start their own businesses, or become administrators in the field of aeronautics.

Transferability

Sometimes we have periods of recession or fuel shortage. During that time there are few job openings for pilots. If I couldn't find work as a pilot, I could use a lot of my skills in other jobs. With a little training, I could become an air traffic controller or an airline dispatcher. Administration has always interested me; I could become an airport manager or an airport official, such as personnel director, director of public relations, or district sales manager. My degree in engineering gives me a good background for the positions of aerospace technician or aerospace engineer. I would find it interesting and challenging to design and construct aircraft. Teaching subjects related to aircraft is another way in which I could use the knowledge I've acquired as a pilot.


POINTER IS HIDDEN WHEN
CURRENT IS OFF
BUZZER
BRT

As radio officer I am familiar with all the communication equipment on board.

Radio Officer

"Oh, oh. We have a distress call! Right. I had better relay this to the captain. Captain, we just got word that a small pleasure boat is out of gas and needs help . . . O.K. Will do."

That's one of the things that makes this job exciting. There is no such thing as a typical day when you are a radio officer on a ship. Anything can happen. Once we were radioed from a yacht that one of their passengers was about to have a baby. I really had to move fast, flipping the switch, opening circuits and pressing keys fast, but we were able to send a "chopper" (helicopter) to pick her up and get her to the hospital just in time. We received word that she gave birth to a beautiful baby girl. The mother said she was tempted to name the baby after our ship since we helped her, but I am glad she did not, because we call this old tug "Moby Dick!"

I like being a radio officer because I

do so many different things. I operate and repair all of the radiotelegraph and radiotelephone equipment aboard the ship. I am so familiar with the radio that if I hear a strange noise I can pretty well detect the problem. Usually, it is something I can fix, like a blown tube or a burned out resistor. On occasions, however, it is something major that can not be fixed until we reach our destination.

Most of my day is spent receiving and transmitting messages from our ship to others or to shore. I also monitor the emergency frequency for distress calls like the one we got today. It really makes me feel good when I play a part in helping someone.

Did you know that life-boats have radios on them? Well, they do, and I see to it that those radios are kept in tip-top shape. I check them over periodically to make sure they are in working condition in case we ever need them.

Aboard ship we constantly receive broadcasts which supply us with information about the weather or any navigational hazards we need to know of. While we don't receive a newspaper, we do receive news over the wire-press I remember that we were in the middle of the Atlantic Ocean when we received word that Jimmy Carter had been elected President of the United States. When I relayed the message to the rest of the crew I heard lots of noise, both "boos" and "yeas."

Being a radio officer, I also operate the ship's telegraph equipment. When we get a message over the teletype, I listen to the signal, type the message on a special form, and relay it to the addressee by telephone teletype. I remember as a kid in school learning that Marconi invented the telegraph, except at the time, I thought his name was "Macaroni!" Now I see how important his invention is.

Although I work quite a lot with machines and equipment, I also deal with people. I talk to them on the phone when I relay messages. Over the years, I have met some interesting people that way.

Working Conditions

I guess what got me interested in working on a ship was the four years I spent in the Navy. That's when I got my "sea legs." Being out on the open sea gives me a chance to detach myself from others and think. I like being with people, but I also like time to myself. We have a great crew; we are like one big family. We kid each other a lot but we also appreciate each others' work. We are a real team. Working on a ship also gives me a chance to visit many parts of the world and see how others live. There is a lot we can learn from people who are different from us; I only wish we all had the chance to find this out.

Although most of my day is spent inside the ship, once we hit port, I go ashore as fast as I can. I want to learn as much as I can from other people and other countries.

Yes, I love what I do, but there is

one thing I miss. I don't get to see my family as often as I would like. That is very difficult, even for a bachelor like me. I do not think I will ever get married, but I do miss my family and friends. Sometimes we are out at sea during vacations such as Christmas. It is no fun knowing my family will be together enjoying each others' company while I am out in the middle of the ocean somewhere. Sometimes I get tired of being on a constantly moving, swaying ship, then I long for solid ground.

My family and I keep in touch through letters, and I try to describe the many sights I see to them, but that is not the same as being with my family, talking and laughing together.

I like throwing switches, pulling levers and making things happen. I like seeing the world, and yes, I like the nice long vacations we get once we are back home in San Diego. We usually get one to two months paid vacation. During that time I can see my family and friends, and we usually try to make it up to Sequoia National Park to camp out for a few days and enjoy nature.

Being a radio officer aboard ship has many benefits besides the long paid vacations. We are paid very well because of the hardship placed on us and our families by our being away for long periods of time. We also have an excellent hospitalization and dental plan for ourselves and our families, and we have a good retirement plan. So, this job does offer some security for us and our families.

This security comes about because we are subjected to hazards and hardships as part of our job. We must endure extremes in weather from the broiling heat of the tropics, as we make our way through the Panama Canal, to the bitter cold temperatures of the Arctic. This, along with high winds, monsoons and possible tidal waves in the South Pacific all add to the hazards of this job. So, you might say, we are subjected to all kinds of climates and seasonal differences depending on our location at the time.

Qualifications

Oh, I just remembered, I have to get a letter off to my kid brother, Carlos. He will be 14 years old next week, and I promised I'd help him pay for a CB radio he and Dad are putting in the old pick-up. I remember when I was about his age I saw my first CB. It belonged to my uncle, Juan Paz, who lived on a neighboring farm. He took me under his wing and showed me how to operate the radio and taught me everything he knew about it. That is what really got me interested in radios and communications.

Once I finished high school I joined the Navy and requested training in this field. Then I was really hooked. The Navy provided me with the training, which lasted about three months. The rest of my tour was spent operating radios on shore and one year aboard the U.S.S. Enterprise. What a fantastic carrier! It had the latest in communication equipment.

Before I could become a civilian radio officer I had to be licensed by the Federal Communications Commission, which oversees all communications in the U.S. including radio, television and citizen's band radios (CB's).

Related School Subjects

I studied hard and finished high school. I did well in algebra, trigonometry and physics. I was so interested in this area that I guess you could say that it came easily to me. I was lucky that the school I attended was a technical high school because I was able to take several electronics courses which taught me a lot about circuitry and wiring, and whetted my appetite for more.

Personal Characteristics

I owe a lot to my uncle Juan for noticing my interest in figuring out what made things work. He provided the "guiding hand" when my interest was so high. Tío Juan likes to remind me of the time he let me help him hook up a phone from his barn to the house. Because he knew I liked to work on things by myself, he left me alone to work on the hook-up in the house. I crossed some wires in hooking up the phone, and when we tried out the phone, instead of the phone ringing, the door bell rang! We sure laughed about that for a long time.

Advancement

I feel I have come a long way since that experience. And I can still go further in my career, since there is room for advancement as a radio officer on a ship. I can put in a request for transfer to a larger ship which could mean more sophisticated equipment. Also, further advancement could involve becoming a senior radio officer and supervising people who work with me.

Our supervisor's name is Ted. He is only 6 years older than I am, but has more experience. He worked on a larger ship with more advanced equipment, but chose to come on our ship to be supervisor. He is so satisfied with his work, and so young, that it is not a good idea for me to wait on this ship to replace him. It would be to my advantage to look for another job on a different ship or on land.

Transferability

Radio and communications are required in so many areas that with the skill and knowledge I have, I could work in a number of other fields. I know air transportation requires radio communications, as do the radio and television industries.

I have been a radio officer for five years now, and it has given me good experience in the field of communications. I feel that if I decide to take a job on land there are many opportunities open to me. I could be a news copyman, teletype operator, telegrapher or electrical equipment serviceman, to name a few jobs. However, right now I am looking into the possibility of a job with a TV station in Los Angeles. The job is as a control room technician and may prove to be quite interesting. My vacation begins in three weeks and I plan to look into the job further. So next time someone comes up to you and says, "Smile! You're on Candid Camera," I may be playing a part in getting your grin on television.

As a steward I meet many interesting people on board my train.

Railroad Steward

Today is the day the "little people" come to visit us, and we are ready for them. A group of little kids, four or five years old, will be riding the train with us today; I think they are from a local preschool and their teacher wants them to see what a train ride is like. That's great! I understand that the parents of these children are as excited as the children are and almost as many parents as children are in the group. They let me know ahead of time that they would be coming, and I have made special arrangements for them here in the dining car by changing the menu to include hot dogs.

O.K., here they come. "Hi, my name is David. This is a real treat for me, and we're going to make this a fun trip for you all. It's my job as dining car steward on the railroad to plan the menus. How many of you like hot dogs, cokes and chips?"

There's a loud "yea" accompanied by

a few shrieks from some of the children.

"We hope you have a good time, and that you'll come back to see us real soon. The waiters will be by to serve you, and I hope you have a pleasant trip."

It's things like this that make my job fun. As a steward I get to meet many people, and I like that. I not only meet the passengers, but I work closely with my team of cooks, waiters, and bus boys, as we prepare and serve food to our passengers. I am the one who assigns the "work station" to the waiters and bus boys so they know which tables they are responsible for. Since the passengers like to sit on the side of the dining car where they can see the most beautiful scenery, I try to rotate my workers so no one is overworked and everyone has a chance at picking up tips. I also let the cook know about how many people are expected on board the train so he knows how much food to prepare. This helps him to prepare the proper amount of food without being wasteful. I am also responsible for receiving bills and money from the waiters in the dining car.

Not only do I supervise and coordinate others, but I am involved in much planning and preparation. It is up to me to requisition or order the proper amount of food supplies necessary and to see that we have plenty of linen, silverware and dishes, because once we're on our way, we can't stop and go back if we've forgotten something.

All of this is done in advance so that we can continue to give our passengers the excellent service we're so proud of. As steward, I'm also in charge of selling drinks in the lounge car, and when we have a full car, I help serve the passengers. I like this chance to get to talk to the people. Regularly, the cooks and I check our supplies to make sure we have enough and that they are fresh. There is a lot of cooperation between the cooks and the others with whom I work; there has to be, so that our dining car can be a relaxed place. We are all willing to pitch in and help one another, even though that's not our job. When the passengers leave our car they usually say how much they enjoyed themselves; it's because we all work together as a team. This makes things run smoothly. The dining car is the most popular car on the train, and we want always to be "number one." So you see, it is up to me to set the mood for the workers in our car and to pass this friendly, relaxed athomsphere on to our passengers. At the end of my day, which is after everyone has eaten supper, I go over my records making sure that everything balances out. When this is done I can then relax and look forward to another full day tomorrow.

Working Conditions

Working on a train is an interesting experience. I had never really thought about working on a train, but now I am glad I did. I guess what I thought would be difficult to get used to was being in constant motion as the train makes its way across the country, but actually that didn't take long to adjust to. Once I'm doing my work, I sometimes even forget that I'm on a moving train. The constant thump bump on the tracks and an occasional train whistle soon become a part of my surroundings. Since I spend my time inside, the outside climate and geography are not very important to me and don't really affect my job. They are not important to me except for an occasional steep incline which does affect my footing; at those times, I must check on our passengers to see that they are comfortable. I also check for spilled coffee. The geography of the area we are passing is important when we are going through a scenic part of our country, such as the mountains of Colorado or the Grand Canyon in Arizona. The passengers like for me to point out these sites to them. This is when I like to play tour guide and tell them bits of information I've picked up. Did you know that east of Tuba City, Arizona, is the oldest continually inhabited Indian village in the U.S.?

One time we had to pass a train wreck, and of course everyone wanted to know what happened. I received the information from the conductor and was able to pass this on to our passengers and assure them we were not in danger. It's funny, but some passengers from the East think trains are still ambushed in the West and when the train slows down they get very worried. It's times like this that I try to be around to let them know this doesn't happen any more, but train wrecks, mechanical failures and other emergencies are occupational hazards of my job. I'm trained to deal with these situations, and even though I don't like to think of being in a train wreck, I am prepared to help the passengers. Another hardship or difficulty of being a train steward is that we must work at night; on weekends, and on holidays. This is hard for me, because I have a family, and I would like to spend this time with them, but I knew about the schedule before I started working on the railroad.

I get paid very well. This is not only because of the hard work involved, but also because a steward is in a position in which he supervises others. I also belong to a union which is a group that helps workers get paid well and get other benefits. By "benefits" I mean things like the Railroad Retirement Plan which pays me after I retire. I also get unempoloyment and sick leave which means I will still get paid even if I lose my job or get sick. My family can go to the dentist, and if any of them have to go into the hospital, it will be paid for. We never like to think of dying but if I should die, my family will receive money to live on. Also, if for some reason I must leave my job, I can ask for a leave of absence and still have my job when I come back. Yes, even though I'm away from my family a lot, they are taken care of. I also get one month of paid vacation, and if I stay with the railroad I can get up to five weeks vacation. The railroad also has sport activities like bowling, golf, basketball and softball. I bowl, and I can do that in any town I happen to be in. Also, after you have been with the railroad for one year they will help pay for courses you may want to take which will help you in your work. Another really nice fringe benefit is that my family and I can ride the train for half price. Several times we have taken the train from Chicago to Los Angeles to visit my grandmother. We have done this on Christmas Day, and I was able to be with my family on that holiday. So, as you can see, working for the railroad offers many benefits for me and for my family.

In return, the railroad expects me to do a good job. Although my job as steward is not physically difficult, I do have to keep in good shape because I am on my feet most of the day, and by the end of the day I may have walked miles. It's funny, but I can still remember my "abuelita" (grandmother) wearing those brown support stockings all grandmothers wear. Well, now I know why she wore them. I have started wearing support socks which really help keep my legs from aching. I try to take care of myself in order to feel good because I am in constant contact with others. No one likes being around a grouch, and if I am feeling good, this rubs off on those who work with me.

Because the train is always on the move. we have to carry everything we need with us. That means we work in very cramped quarters, and occasionally I get out of our car and walk through the other cars to get a change of scenary.

Qualifications

Sometimes I stop and think of how I started working and how it's been a long haul to get where I am today. When I graduated from high school I really didn't know what I wanted to do. Luckily for me, a friend's father worked for the railroad as a brakeman, and he was trying to keep us out of trouble, so he suggested we try working for the railroad, too. Since we didn't have any training in anything, we started out as dishwasher/bus boys. The work was hard, and the pay was not too good. But we did get some good benefits, such as hospitalization and dental care. In order to get this job we had to pass a physical and be a least 18 years old. After several months of working as a busboy, my friend decided this was not the type of job for him, and he quit. I stayed on, because even though the job was not that challenging I liked meeting people and traveling to places I had never been. And since I had never traveled before, this gave me a real opportunity to see the country. I thought I was really important traveling all over the place. I'd send postcards to friends from New York one day, Chicago the next, and Oklahoma City the next.

Shortly after my friend left, one of the waiters had to leave his job, so that left his position open. They posted the job, and I applied for it. Even though as a bus boy I had worked closely with the waiters, I had two weeks of training to learn the finer points of serving people. It took me a while to catch on; this was after I had spilled coffee on people, dropped plates, and brought out the wrong orders. But I finally caught on, and it was at this time that I realized I could advance further. I was a waiter for ten years and during this time I took courses in food preparation, general accounting and bookkeeping.

Related School Subjects

Since some courses could help me in my work, the railroad paid for them. My boss, who was the steward, took me under his wing and told me what I needed to do to prepare for a better job. At first, I didn't think I could do it, but he encouraged me to continue studying, and at the end of three years I had graduated from junior college. I was the first in my family to do this, so they were very proud of me. About seven years later, I happened to notice the job board where openings are posted; there was an opening for steward. That was when I got cold feet and decided I really didn't want to stop being a waiter. I went back and talked to my boss, and he again strongly encouraged me to try for the job. He had more confidence in me than I had in myself. I knew the promotion was based on seniority, or who had been there the longest, who could do the best job, and I felt like I had a good chance, so I applied. I think having taken those courses in bookkeeping, food preparation and general accounting showed them that I was mature, responsible and looking to the future, even though I was only 30 years old at the time. I had some tough competition from one other man, Carlos. Since he was about ten years older than I was, I knew I had to try hard. Well, I got the job and here I am. You may be interested to know that he also got a job as steward about six months later; one of the stewards was sick for a while, and Carlos substituted for him as an "extra board" worker, and then took over full-time when the man had to take an early retirement. Even though Carlos was my competition for the job, I have to admire him because I know the high standards of honesty and cleanliness that are required for the job of steward. We have since become close friends.

Personal Characteristics

Not only do the railroads expect us to be honest and clean, we must also have shown that we can do a good job when we're not supervised by others. A steward also has to be a leader and be able to help his workers work well together. We also have to know how to plan ahead and assign duties to those working with us.

I have always enjoyed people, and being a steward gives me a chance to meet many different people on different occasions. Some people may be on their way to spend a holiday with relatives, while others may be going to someone's wedding. As a steward I try to show interest and personal concern for them in their situation, and I must be able to talk with them no matter what kind of mood they may be in. All of this is done on wheels as the train speeds across the country. Working at a job like this also means a lifestyle that is different from most people's who go home to their families after a day's work. After my day is over, I usually play cards with some of the others before I go to my room for the night. If the train has stopped for the evening, we usually go to town and take in a movie or sports event. When we reach my home base, I can go home and be with my family. When I get there, everyone is very excited, and I really feel great. We do a lot of catching up about what's been happening with them and with me. This is a very special time for me, especially since it may be weeks between the times I see my family. However, I like my job, and I like traveling, and so we have become used to the situation.

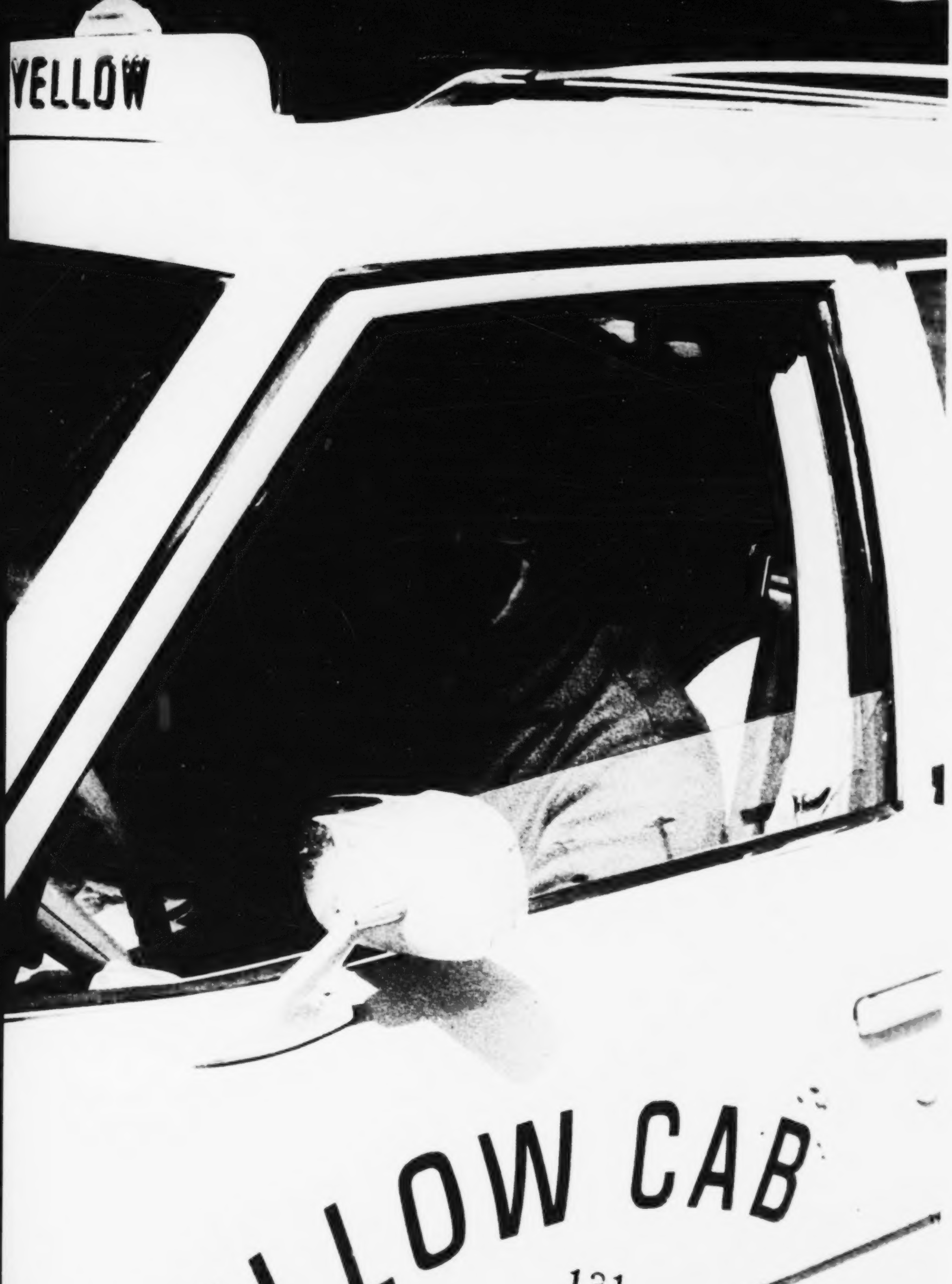
Advancement

Someday I would like to work in a home office as a manager or executive chef, even though that would mean that I couldn't travel and I wouldn't meet as many people. But I would be stepping up and I could spend more time with my family. Since promotions with the railroad are based on seniority and ability, I feel like I will be ready for a promotion in about three years, but I may have to take more courses in accounting, bookkeeping, and management. It would be worth it to me if it meant a chance to move up.

Transferability

I would like to stay with the railroad until I retire, but if I looked for a job somewhere else, there are a number of things I could do. I could get a job as a cafeteria manager with the public schools or work in a hospital as a hospital food service specialist. I could also be a banquet steward, kitchen supervisor or mâitre d' in a fine hotel or restaurant. But now I am happy with what I am doing and I look forward to one more promotion.

I told you I like people, and I like talking, and I suppose I have done quite a bit of talking to you now. But I did want you to know as much as you could about life as a steward on the railroad.


YELLOW
ELLOW CAB

Taxi drivers in big cities are kept very busy.

Taxi Driver

Cruising with the flow of traffic on Broadway near 110th Street, I can see my next customers. They are desperately signalling, and they happen to be on my side of the street. As I stop my cab one of them says, "To 326 West 49th Street between 8th and 9th Avenue, please." It is a Friday, and the time is 5:30 p.m.; the traffic is heavy going into midtown Manhattan. Even with the lights synchronized, the pace is slow. As soon as the passengers get in, I turn on the meter which is now reading 75 cents. Next to the meter is my license, which can easily be seen from the back seat. Written in bold type is the following:"Julio Méndez — 05673996" with my picture next to that. Underneath, it states, "Please report any complaints to this number, 873-1583, or the district officer of the Checker Angel Cab Company."

When I started my shift today at 3:30 p.m., it was an overcast day and rain was expected, so I figured it would be a good day for business. As a taxi driver, my prime responsibility is to take passengers to their destination by the shortest and quickest route possible. To do this, I must be aware of all detours and traffic conditions.

As we reach 49th Street, I drop off my passengers. "That will be $4.50." One of them pays me with a ten dollar bill. After I return his change, he tips me fifty cents.

Down on the corner of 9th Avenue is a lady with three shopping bags filled to the brim. I immediately pull up beside her as she waves at me. I can't refuse a passenger even if I want to, since it is against New York City's ordinance for a cab driver to turn down a rider or to pick and choose. I could be suspended for doing something like that.

The lady says, "To 418 Central Park South on the right side." Upon reaching the high-rise apartment, the doorman comes over and helps her with the bags.

Going down Central Park South toward Fifth Avenue, the radio dispatcher asks for a cab to go to the Pierre Hotel and pick up two people for a sightseeing tour of Manhattan. I call back and take the assignment, which I know will take at least three hours. I pick up my passengers, negotiate a flat rate, and then we're off. This kind of individualized transportation would not be possible if it were not for taxi cabs.

Reaching the corner of Sixth Avenue and 46th Street, I see a man and a woman coming out of a store. The man is pointing a gun at the cashier. I immediately get on the radio and call the dispatcher, giving her all the information. This is my contribution to keeping the city's crime rate down.

After a three hour tour I drop off my passengers at their destination and continue looking for customers. Knowing where to find passengers is a necessary part of this business. I sometimes go to Port Authority, the East Side Terminal, or Grand Central Station. I have to log all my trips in a daily log book. Keeping track of where I go is important if I want to get paid correctly. My day often comes to an end after having traveled the entire city and having dealt with all kinds of people and situations.

Working Conditions

Many of my passengers say that I am lucky because I sit and drive around town all day. I sometimes explain that it's not all that easy. There is a lot of tension in my job. Although taxicab drivers are employed in all the smallest towns, most of the openings are in large cities. There are approximately 100,000 cab drivers in the United States, and one-fifth of them work in New York City. This fact forces me to live in an urban area. Many drivers rent their cabs from a taxicab company. The rental fee is $20 plus 20% of what the meter registers. Car repairs are also paid by the cab driver. The company pays for the oil and gas.

So in order to earn a good living, I have to work six days a week. This week I am working the afternoon shift which ends at about midnight. Sometimes I begin work at 6:00 a.m. to be available for passengers going to work. I usually stop when the afternoon rush hour is over. Some of my co-workers work weekends and night shifts. Taxi drivers are not paid for overtime work. I have to work under all kinds of weather conditions. On bright clear days, business is not so good, but when the weather is bad, naturally people ride in cabs more.

There are at least two different ways I get customers. First, I drive around busy areas and watch for potential customers, or I may wait at the bus terminals, hotels, theatre districts and other places where I know business will be good.

Because my co-workers and I are on the road so much of the time, our chances of having an accident or injury are high. Therefore, the company pays high insurance rates, and my own personal life insurance rates are high, too. There is always a constant element of danger in driving a cab. A few of the passengers I have taken to their destination have run out of the cab without paying their fare. There are some people that have robbed cab drivers and/or shot them. Sometimes I get passengers who are insulting and abusive. I really have to control my temper and yet be firm. If a customer makes a complaint, there is always the possibility of suspension.

Some taxicab drivers are independent. They buy their own cab and go into the business for themselves. Self-employed taxi drivers must have good business sense. They have many expenses, including the upkeep and depreciation of the taxi, as well as the initial expense of purchasing it. Of course, they usually make more money than a taxi driver who rents a cab.

My salary consists of 40% to 50% of the total fares. This is after I pay for rental and maintenance. I also get all the tips, which range from 10% to 20% of the total fares. Drivers of some companies get a flat salary per hour, and others are guaranteed a minimum salary. Like other full time drivers, I receive fringe benefits such as paid holidays, vacation, sick pay and hospitalization insurance.

One of the physical demands placed on cab drivers is the stress of driving in heavy traffic. Also, I sometimes unload packages or help passengers with their baggage. After work, self-employed drivers and those working for small cab companies usually have to clean their cabs. I don't, since my company has workers at the main garage that do this.

Drivers working in small cities and suburbs usually return to a central station after each trip. Of course, they can be called while on the way by the dispatcher to go pick up a passenger, or they may be flagged down by a customer.

My business is really affected by the

seasons and weather conditions. When it is freezing, raining or snowing, I tend to get more passengers. In the summer, some people prefer walking, but this is made up for by tourists, and by the fact that more people are out on the streets. Large conventions also bring very good business to taxi drivers.

Qualifications

When I applied for my job, I found that there were few formal education requirements, but most taxi companies prefer that the applicants have a minimum of an eighth grade level education. The company I work for requires that all applicants pass a written examination dealing with taxicabs and traffic regulations. One basic requirement is that all applicants must be able to write legibly and be able to complete required forms. Since this type of occupation deals mostly with people, I must be able to deal with them tactfully and courteously. It helps to be able to get along with other taxi drivers. I have made many friends driving on the streets of the "Big Apple," New York City.

I had to take a physical and blood test to get my job. Most companies require that one be in good health. Also, before I started working I was given basic training on rules and regulations, locations of main thoroughfares and important buildings. In some cities, applicants must study before taking the exam.

In New York, I was required to have a chauffeur's license and a special taxicab operator's license issued by the city. In short, although taxicab operator's licensing requirements vary greatly throughout the country, drivers generally must be in good health and have both a good driving record and a good police record. Because of insurance regulations,some companies will only hire applicants who are at least twenty-one and in some cases twenty-five years old.

I really enjoy my job because I'm the type of person who's not afraid of facing new situations, and I like meeting people. I feel that in order to become a taxi driver, one must be friendly and sensitive to passengers' wishes. For example, when I notice a passenger wants to be quiet, I won't strike up a conservation. What I like about driving a taxicab is the mobility, meeting interesting people and the idea that I can make up my time schedule and my routes. Because of the large Latino population in this city, my Spanish is very useful to me in getting better tips and happy customers.

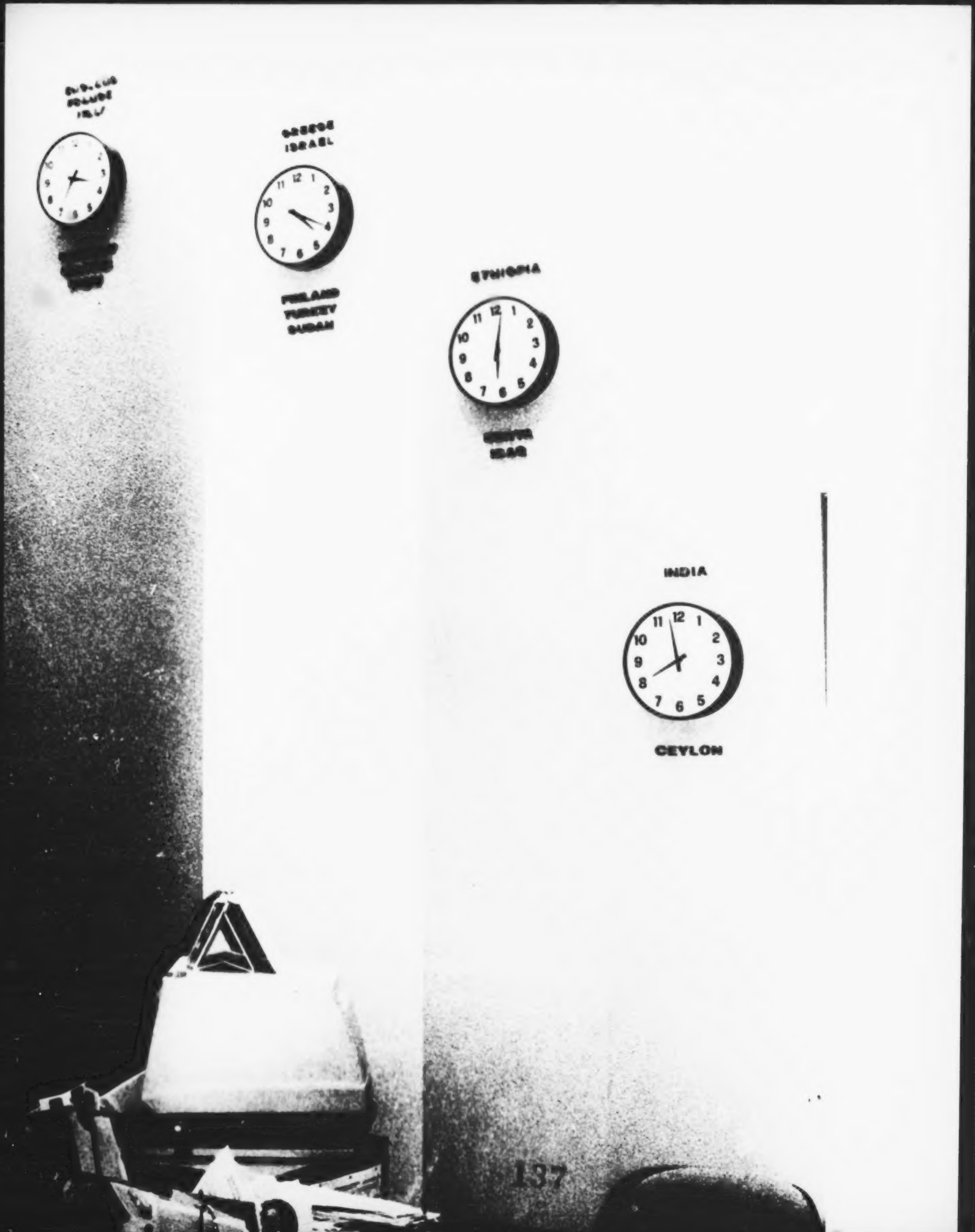
Advancement

There will be many job opportunities for taxi drivers up through the 1980's. Although I don't think the total amount of taxi drivers will increase significantly, the high turnover will create many openings.

Another factor that is important in job opportunities is a possible gasoline shortage. Opportunities for advancement are small, because of the limited number of supervisory personnel. Some drivers, however, become road supervisors, garage superintendents or claim agents. Others who develop administrative skills advance to managerial positions in the company.

Transferability

If I were to change occupations, I could work as a city bus driver, private chauffeur, long distance bus driver, power truck operator, or work in car sales.


GREECE
ISRAEL
FINLAND
TURKEY
SUDAN
ETHIOPIA
KENYA
IRAQ
INDIA
CEYLON

The clocks on our wall assist us in remembering the correct times throughout the world.

Travel Information Service Worker

The ringing of the phone makes me reach for my office keys in an attempt to unlock the door. It's no easy job as I have two armloads of new posters and maps. I drop purse, maps and posters.

"Oh, well," I say to myself. "A person with a name like 'Grace' should earn it!" I laugh as I recall my brother affectionately calling me "María sin Gracia." How I'd chase him when he'd chant:

"María, sí.
María, no.
Graciela sí . . .
¿¿Gracia?? NO!
¿María con gracia?
¡María sin gracia!"

Finally I manage to pick everything up and unlock the door.

For the past two years I have been a travel information service worker. My job is to provide people with complete travel information: means of transportation, cost of fares, travel schedules, private or public tours, visas and travel permits, points of interest, maps, lists of hotels, entertainment, tourist information centers, and many other kinds of information. I help both individuals and groups to plan their vacations, so they can relax in a new place and enjoy themselves.

I plan trips with clients either personally or on the phone. They discuss their plans with me, the travelers involved and how much money they have for a trip so that I can help them make some practical decisions. I also spend a lot of my time answering questions over the phone, getting in touch with different travel agents, hotel reservation clerks and museum directors. I will always have the most current schedules, timetables, fares, and hotel rates. I also collect general information about special events and points of interest for visitors and tourists.

My files are up to date with maps, colorful posters, schedules, and pertinent information relating to travel. To be effective, I must have all these things at my fingertips.

Working Conditions

My office is an independent agency located near a shopping mall easily accessible to people. Travel agencies, however, may be found at airports, larger hotels and bus or train depots in virtually every city. Most of my time is spent indoors in pleasant surroundings. I love meeting people and sharing their excitement over their travel plans. There is ample opportunity to practice my Spanish and French, and each time I deal with a foreign visitor I try to learn a greeting or useful phrase in their language. That usually pleases them, and it's a challenge for me.

My company provides the usual benefits: sick leave, paid vacations, insurance, retirement benefits, and reduced travel fares. On business trips, all expenses are paid.

Qualifications

A high school diploma is the minimum amount of education required for a job like mine. Chances for employment are better, however, with some college background. Knowledge of some foreign language is important and very desirable. Some agencies prefer that their employees have experience in traveling so they can better understand the problems of other travelers. Traveling is my hobby so I'm more than eager to visit a new place or a new country. The experience gained in traveling is an education itself because you become familiar with a region, its points of interest, its people and their lifestyles and customs. Since I took this job, I've come to know this area like the palm of my hand. My boss says that if I want to become manager of a travel agency, I need to get a degree in social studies or a related field.

Related School Subjects

When I was growing up, my father

encouraged me to learn both Spanish and English well. Later, when I started high school, I studied French. My father couldn't speak French, but at supper time he asked me to practice it with him and my younger brother. I always believed Carlos was half monkey; he would hold his nose and utter nonsense syllables in a serious attempt to carry on a conversation with me. But in spite of all the teasing, both my father and Carlos learned a little French. My father confesses that he used to practice catchy French phrases on the other carpenters. His favorite was "C'est la vie" (That's life) which he pronounced "Se laví."

In addition to languages, history and sociology courses are very helpful. They provide a rich background for travel. My courses in speech and public speaking have also given me confidence and poise in dealing with people.

Personal Characteristics

My friends tell me that I have a good sense of humor. That helps me deal with many people, and I can manage to be pleasant even when clients are irritable or impatient. Their impatience is usually due to fear that something will go wrong during their trip, so if I can stay calm, they do not feel so nervous.

The taste for travel and adventure which I acquired from my father is well suited to my job. I also enjoy visiting historical sites, museums, and attending cultural events. I belong to many travel clubs, folk dance groups and church and civic organizations. As a member of these groups, I'm often asked to help organize field trips, provide information and serve as tour guide for exchange students or foreign visitors. Occasionally, I volunteer my services to the Girl Scouts at my neighborhood school.

Advancement

Next month, I am being promoted to assistant manager of the company. The managerial position is the highest promotion available, but my boss holds that job.

Transferability

With my background and skills I could easily serve as a full-time tour guide, ticket agent, reservation clerk, or as an interpreter with an airline. With some additional training, I could also become a stewardess.

It is from the truckers that I learn the latest C.B. jargon.

Truck Dispatcher

"Breaker 1-9. Breaker 1-9 to Mickey Mouse at the house."

"This is Mickey Mouse. Go ahead, Breaker."

"We thank you, good buddy. This is Big Feet Talamini. Just want you to know I'm bringing in this eighteen wheeler, and it needs a grease job. Could you set up an appointment?"

"10-4. Let me have the truck number, and I'll call the garage. Maybe you can take it directly there."

"The number is 1-4-7. Thank you, good buddy. Have yourself a good day. Catch you on the flip-flop. I'm out and I'm gone."

Truckers communicate in their own language. When they are within transmitting range, they report on their C.B. radios (Citizen's Band). "Mickey Mouse" is my C.B. handle (name) because they know I always have my "ears on." (In C.B. jargon that means I'm always tuned in.) "Breaker" means "I want to talk," and "flip-flop" means on the return trip.

That's the third truck I've sent to the shop this morning. Luckily, they have not needed major repairs.

I'm a truck dispatcher for the Moving On Company. Although I sit most of the day, I am involved in a great deal of activity. The bulletin boards on my walls are covered with lists of truckers, driving schedules, destinations, cargos, expected times of arrival and return. Answering the calls on the switchboard keeps me busy. When I'm not on the phone discussing delivery details with customers or scheduling drivers, I'm on the C.B. answering truckers' calls in the city. Between calls, I keep records of the drivers' mileage, fuel used, repairs made and other expenses incurred on the job. Whenever trucks are overdue, then I investigate the cause and try to solve the problems. Once in a while when we have fragile cargo, I supervise the unloading and loading.

Working Conditions

My office is located at Moving On headquarters in a large metropolitan city. Many people go in and out of my office constantly. The truck drivers come in to check their schedules or to verify their assignments. My boss comes in with new contracts.

I usually work an eight-hour shift. Sometimes I work at night, and once a month or so, I work on weekends. Because our company is so large, we have three dispatchers, working eight-hour shifts.

Dispatching means alertness. I have to plan schedules and direct the drivers' activities, type memos, keep accurate records and detect any errors in scheduling or tabulations. At the end of the month, I make a complete report of the operations for that period. At the same time, I must always be ready to talk to at least one, and often two or three drivers who need my help. Interruptions are a big part of my day, and if I were a person who is annoyed by them, I would be very unhappy in my work.

The operations of this company are a full-time, year-round business. The employees all belong to the truckers' union. The company, however, provides hospitalization and group insurance, paid vacations, sick leave and unemployment compensation in case of lay-offs or disability.

Qualifications

My job requires a high school diploma. Clerical and organizational skills are needed, along with a good background in basic math. Our company sends its dispatchers to night classes at the local community college for a course in dispatching and production scheduling. Most of the training, however, is gained on the job. There are no licenses or certificates required.

Before coming here, I worked a couple of years as a dispatcher for the police department in Norwood, Ohio. The department was small and quite different from working in a large city, but the experience was very valuable.

Related School Subjects

In junior high and high school, I took math, typing, filing, bookkeeping and all the other business subjects the school offered. At that time, I had planned to be an accountant and knew those courses would be helpful to me. However, accounting work consisted of too much routine to suit me, so I looked for some other job where I could put my skills to good use. My job as a dispatcher gives me a wide variety of constant activity. There's not much time to get bored.

Personal Characteristics

I enjoy keeping busy and working with different people. The truck drivers often come into my office to share some of their experiences on the road. I listen, laugh at their jokes and sympathize with their problems. It's from them that I learn all the latest C.B. jargon.

My brother is an amateur ham radio operator so I have an added interest in short-wave communication.

Advancement

A dispatcher who learns the workings of the company has a good chance of advancing to assistant manager and later to manager. If the person has the potential, the company may send the dispatcher to school for a degree in business or management. In large companies such as ours, there may be more than one dispatcher, but one may serve as the main dispatcher with greater responsibilities and more pay.

Transferability

Jobs for dispatchers may be found with bus companies, airlines, police stations, fire departments, and most companies that have a fleet of vehicles. One may easily transfer to any one of these related areas. The skills needed to be a dispatcher could also be used as a telephone operator or secretarial clerk.

My son Ryan brings his pet in for regular checkups

Veterinarian

Ms. Nolan has just left with her two children, Pasha, an elk hound and Cleo, a labrador. They were here for their general check-up and all seems fine with them. Cleo is brought in more than Pasha because of a seizure condition which keeps her on medication, but I am quite familiar with both dogs. Ms. Nolan takes very special care of her pets, as do most of my clients. There is a special bond between pets and owner and I never fail to notice the love and caring between them. My own special feelings for animals is one reason that I decided to become a doctor of veterinary medicine.

Working Conditions

My office hours here at my own clinic are 8-6 weekdays and 3-12 Saturdays. I have another doctor in association with me, so I can occasionally take an afternoon off. We have a 24 hour answering service which my associate and I rotate and we average 10-20 after-hours calls a week. Usually the problem can be solved over the phone, but occasionally we must meet the patients at the clinic in the middle of the night or travel to their home to tend to the emergency.

I see patients during the majority of the day, setting broken legs and giving rabies shots and other inoculations. We try to reserve the two hours at midday for surgery that most often has to do with sterilization. My most difficult surgery is when an animal has a shattered leg from a gunshot wound. Finding all the bone fragments and repairing the leg is a tedious but necessary process.

Qualifications

A college degree in Veterinary Medicine is required for my profession. I spent two years at a state university studying pre-vet courses and then had a 3 year, all year round study at Texas A & M University. They have changed the program to 4 years with the summers off so that students can take summer jobs for either experience or financial assistance.

The courses involve science, biology, chemistry, calculus, and animal husbandry. We do surgery and experiments and learn comparative anatomy. I was disappointed that we were not offered business courses to help us, or psychology courses to assist us in coping with the different personalities of our pet owners. It seems to me that good 'bed side manner' and sound business judgement are essential to being successful.

Related School Subject

While in high school I had not made the decision to study Veterinarian Medicine, yet I took every course in science and agriculture that was offered because I lived on a farm and needed that type of knowledge to help at home. I remember that when I was a junior I asked for and received for Christmas, four piglets! I raised them, bred them and made an excellent profit in about 2 years. Shortly after that first Christmas one of the piglets was spooked and ran into a corner of the barn where a large nail hooked him. I went into town to get a sleeping pill at the drug store, fed it to him and my brother and I did a very good job of sewing him up with Mother's needle and thread. That piglet grew to be the largest of the litter. Perhaps I should have realized then what my profession was to be.

The English courses that I was required to take in high school and college have been helpful to me because I am constantly using written and verbal communication. I am in a profession that is respected in the community and correct English usage is important.

Personal Characteristics

To be a successful veterinarian you must have a large amount of initiative; a willingness to work hard. A well balanced education and a thorough knowledge of vet medicine are important. A veterinarian should have above average intelligence, patience and an understanding of patient's owner's personalities. Each day something new happens and I am constantly surprised by my patient's owners. In my five years of practice, I have never been bored.

Advancement

Some veterinarians never open their own clinics, but stay as associates with other doctors or clinics. This makes the job a little less stressful because they only need to be concerned with their performance and paycheck. Since I do own my own clinic, I am concerned with all the financial aspects of a small business, the upkeep of the building and the overall management of the entire clinic. I would like to sell my clinic after my three children are through college, buy my own farm and 'doctor' my own animals. Hopefully I can continue to build my business until that time arrives.

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